REPORT RESUMES

ED 010 497 08
A DETERMINATION OF NEEDED ADJUSTMENTS AND EXTENSIONS IN THE CURRICULAR PATTERNS OF VOCATIONAL EDUCATION IN AGRICULTURE. FINAL REPORT.
BY- TAYLOR, ROBERT E.
OHIO STATE UNIV., COLUMBUS
REPORT NUMBER ERD-002-65 PUB DATE MAR 66
REPORT NUMBER BR-5-0031
CONTRACT OEC-5-85-009
EDRS PRICE MF-$0.18 HC-$4.12 103P.

DESCRIPTORS- *VOCATIONAL EDUCATION, EDUCATIONAL NEEDS, EDUCATIONAL CHANGE, *AGRICULTURE, OCCUPATIONAL GUIDANCE, RURAL YOUTH, *CURRICULUM PLANNING, BIBLIOGRAPHIES, HIGH SCHOOLS, POST HIGH SCHOOL GUIDANCE, *PREVOCATIONAL EDUCATION, NONFARM YOUTH, SUBPROFESSIONALS, *SERVICE OCCUPATIONS, COLUMBUS, OHIO

TO MORE EFFECTIVELY MEET PREPARATORY TRAINING NEEDS IN NONFARM AGRICULTURAL OCCUPATIONS, THE ADJUSTMENTS AND EXTENSIONS NEEDED IN HIGH SCHOOL AND POST-HIGH SCHOOL CURRICULAR PATTERNS OF AGRICULTURAL VOCATIONAL EDUCATION WERE IDENTIFIED. COMMITTEE MEETINGS, AREA SEMINARS, AND A NATIONAL CONFERENCE WERE CALLED WHICH SUMMARIZED, INTERPRETED, AND SYNTHESIZED VARIED PROGRAMS FOR AGRICULTURAL OCCUPATIONS. RESULTING CURRICULAR AND ADMINISTRATIVE RECOMMENDATIONS WERE PRESENTED IN A SERIES OF SPECIAL PUBLICATIONS (LISTED IN THE REPORT). IN ADDITION, CURRICULAR MATERIALS WERE DEVELOPED FOR COURSES IN FOUR SUBJECT AREAS--AGRICULTURAL MACHINERY (SERVICE OCCUPATIONS), AGRICULTURAL SUPPLY (SALES AND SERVICE OCCUPATIONS), HORTICULTURE (SERVICE OCCUPATIONS), AND AGRICULTURAL CHEMICALS TECHNOLOGY. (GD)

ED010471

5-0031

50031

FINAL REPORT
ERD 002-65
OE - 5-85-009

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

A DETERMINATION OF NEEDED ADJUSTMENTS AND EXTENSIONS IN THE CURRICULAR PATTERNS OF VOCATIONAL EDUCATION IN AGRICULTURE

March, 1966

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

A DETERMINATION OF NEEDED ADJUSTMENTS AND EXTENSIONS IN THE CURRICULAR PATTERNS OF VOCATIONAL EDUCATION IN AGRICULTURE

ERD 002-65
OE - 5-85-009

Robert E. Taylor

March, 1966

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

The Center for Research and Leadership Development
in Vocational and Technical Education

The Ohio State University
980 Kinnear Road
Columbus, Ohio 43212

TABLE OF CONTENTS

Introduction 1

  Purpose 1

  Objectives 1

  Background 2

Method 3

  Development of the Project 3

    First Project Advisory Committee Meeting 4

    Selection of Key Areas and Curricular Materials to be Developed 6

    Related Publications 8

    Staff Personnel 9

    Second Project Advisory Committee Meeting . . . 13

    Activities Prior to April Advisory Meeting . . . 13

    National Advisory Meeting for Developing Programs of Education in Off-Farm Agricultural Occupations . . 15

    Activities Prior to National Conference on Off-Farm Agricultural Occupations 17

    The National Conference on Off-Farm Agricultural Occupations 17

    Activities Subsequent to National Conference on Off-Farm Occupations 19

    Area Meetings 19

  The Development of Curricular and Supporting Materials. 19

  Evaluating the Project 24

    Strengths of the Project 24

    Problems Associated with the Project 25

Summary 26

Appendixes 31

INTRODUCTION

The major objectives of this project were accomplished through the series of specialized publications listed on Pages 19 to 23 of this document. This publication constitutes a report of the project and the procedures used in developing these specialized publications.

Purpose

The major purpose of this project was to determine the adjustments and extensions needed in the high school and post high school curricular patterns of vocational education in agriculture to more effectively meet preparatory training needs in off-farm agricultural occupations. The summarization, interpretation, and resulting synthesis of the studies on agricultural occupations completed by twenty-six states provided the basis for determining extensions and adjustments in the curricular patterns.

Objectives

The following six specific objectives were established for the study :

1. To identify the major occupations which require competency in agriculture;
2. To determine the agricultural competencies needed by workers in these occupations;
3. To cluster the major agricultural occupations which require similar competencies;
4. To develop and refine the curricular guides and supporting materials which were most needed and feasible for the major clusters of agricultural occupations;
5. To examine the data from the studies on agricultural occupations for other implications, giving particular attention to:
    - a. Programs for disadvantaged youth
    - b. Projected employment opportunities in major agricultural occupations
    - c. Needed adjustments in administrative and supervisory procedures
    - d. Organizational structure for providing vocational education in agriculture
    - e. Needed adjustments in teaching and coordinating methods

f. Pre-service and in-service education of teachers

g. Selection, placement, and follow-up of students

6. To train key state leaders in the use of the curricular guides and supporting materials.

Background

In recent years, agricultural educators and others have become increasingly aware that (1) agriculture and farming are no longer synonymous and (2) a broad complex of agricultural businesses and services have evolved which facilitate the work of the farmer and rancher in production agriculture. Consequently, leaders in agricultural education, in consort with other key groups, have undertaken an extensive research program to identify workers who require a knowledge of agriculture to perform their jobs successfully and to identify major agricultural competencies they might need. The need for such a program was further underscored by passage of the Vocational Education Act of 1963 which gave vocational education in agriculture a broadened responsibility to prepare workers ". . . in any occupation involving knowledge and skills in agricultural subjects, whether or not such occupation involves work of the farm or of the farm home. . ."

The National Center for Advanced Study and Research in Agricultural Education, in cooperation with the Agricultural Education Branch of the U. S. Office of Education, sponsored two national research coordination conferences to facilitate research in this area.

The first of these conferences was held May 27-29, 1963, with state staff members from fourteen states participating. The following were the major purposes of the conference:

1. To maximize the possibilities for coordinating and achieving commonality in the agricultural occupations studies being conducted by the several states without violating the integrity of individual state studies;

2. To provide other states with resulting materials and to encourage comparable studies.

The Second Research Coordination Conference was held at The Center on January 13-15, 1964, with state-staff representatives of twenty-one states participating. The major purposes of this conference were:

1. To develop summarization procedures which would facilitate national interpretation of data;

2. To develop guidelines for establishing and evaluating pilot programs growing out of the studies on agricultural occupations.

The rationale underlying these two conferences and this particular project was: (1) that individual states were faced with the common problem of identifying needed adjustments and modifications in their curricular offerings in vocational agriculture; and (2) that by pooling resources and talents, it would be possible to supplement and reinforce individual state efforts. Furthermore, it was apparent to agricultural educators and others, that a sustained, coordinated national effort would be more effective in serving the agricultural industry than would a series of isolated individual projects. The broader base provided by the coordinated approach minimized duplication of effort and provided individual states with greater confidence in developing their own programs than if intrastate data were utilized.

By December 15, 1964, six states had completed or were completing surveys concerning the needs for education of persons seeking employment opportunities in agricultural occupations.

METHOD

Development of the Project

In December of 1964, Dean Roy M. Kottman and members of the College of Agriculture and Home Economics of The Ohio State University, recognizing the importance and immensity of the task being undertaken, made available a short-term allocation of funds for initiating this project. On December 1, 1964, the director and the two associate project leaders began outlining activities and the schedule to be followed in attaining the project's objectives.

Dr. H. M. Hamlin, Professor Emeritus of Vocational Education, University of Illinois, assumed responsibilities as an associate project leader. Dr. Hamlin is a nationally recognized leader in vocational and technical education and a former Chairman of the Division of Vocational and Technical Education at the University of Illinois. Dr. Glenn Z. Stevens, Professor of Agricultural Education, Pennsylvania State University, and Chairman of the Research Committee of the American Vocational Association, agreed to serve as a co-leader of the project and began work in December as an associate project leader.

During the first week of December, 1964, plans were made to invite fifteen teacher educators, teachers of vocational agriculture, supervisory staff personnel, and a representative of the National Academy of Sciences to an advisory meeting with the task force personnel.

The second week in December was used by task force personnel to hold personal conferences with directors of the different state occupational need surveys, supervisors, and teacher educators in attendance at the professional meetings of the Agricultural Education Division of the American Vocational Association Convention in Minneapolis, Minnesota. Representatives of more than thirty states were contacted at this meeting.

First Project Advisory Committee Meeting

The first advisory committee meeting was held on January 14 and 15, 1965, to make recommendations to the project task force. Committee members worked on two major problems: (1) summarization of employment opportunities, and (2) direction to be taken in the development of curriculum materials.

Reactions to the following specific questions were sought from advisory committee members:

1. What procedures should be employed to effectively summarize state studies?
2. For what major occupational clusters should training be offered?
3. What are the implications for Standard Industrial Classification of Agricultural Occupations? (Prepare a master list of job titles.)
4. What are the entry opportunities in agricultural occupations?
5. What are the implications for high school and post high school curricular offerings?
6. How many programs of a given type should there be in a state?
7. What should be the relationship of educational offerings for job entry and continuing education in that program?
8. How should the length of training programs and the level of preparation be determined?
9. What should be the relationship between course offerings and occupational experience programs?
10. What consideration should be given to the problem of intensive short courses versus part-time evening classes?
11. What can be done to cope with the situation where workers are residing in locations distant to job centers?
12. Who should assist in curriculum development (agricultural education, agricultural industry, other vocational services, trade associations, manpower economics, economics, sociology, etc.)?
13. Should the concern of the committee include the total spectrum of agricultural occupations (professional to semi-skilled)?
14. What administrative requirements should be considered in program development?
    a. Organizational structure
    b. Policy formation

    c. Finances

    d. Setting and type of institution

15. What factors should be considered in state-wide master planning?

16. What should be the function of the teacher-training institution?

17. What kind of people should be reached with occupational education programs in agriculture?

18. What factors should be considered in program development below the baccalaureate level?

Four suggested curriculums, based on the preliminary data available from ten state studies, were presented to the advisory committee for their consideration. These suggestions were:

1. Horticulture
    a. High school level program for disadvantaged youth
    b. Continuing education for adults
2. Agri-Business
    a. Continuing education for adults on a part-time basis
    b. Cooperative occupational experience programs for high school students
3. Agri-Mechanization and Automation
    a. High school level program
4. Conservation, Forestry, Wildlife, and Recreation
    a. For the post high school preparation of technicians

It was the consensus of the advisory committee that examples of curricula in four areas at different "levels" of preparation should be developed by the project task force. The committee recommended that primary attention be given to developing a post high school program in the area of agricultural machinery. The committee also recommended fifteen items or factors to consider for the agenda of the national conference on agricultural occupations to be attended by agricultural industry representatives, head state supervisors, and teacher educators from each state. These were:

1. Report of state studies - What do the studies show?
2. Examples of varying kinds of programs already in operation.

3. Curricular patterns that might be followed.

4. Guidelines for introducing new programs.

5. Relationship of existing and future occupational programs.

6. Pilot or experimental programs which might be designed to give direction for the future.

7. Suggestions for broadening and extending present programs.

8. Problems of recruiting, selecting, and training personnel, including inservice training of present teachers.

9. Public information (dissemination - public relations).

10. Responsibilities of state staff personnel.

11. State-wide master planning.

12. Facilities needed for training programs.

13. Development of future curricular guides.

14. How to finance training programs.

15. Evaluation procedures that may be followed.

Persons who attended the January advisory meeting are listed in Appendix "B."

Selection of Key Areas and Curricular Materials to be Developed

As a result of the January advisory committee meeting, the project task force personnel agreed during the staff meeting on January 19 that the following items were basic to the project's success:

1. Occupational areas should be identified that afford the greatest number of entry opportunities.

2. These occupational areas should be further delineated into categories which have the greatest implications for agricultural training.

3. Occupational areas should be identified that are common to the greatest number of states.

4. Training programs that have a record of successful operation should be identified and utilized in developing curricular materials.

5. Materials developed should emphasize the personal attributes needed for successful job entry and tenure as well as the occupational competencies.

On January 20, 1965, the project task force decided to develop curricular materials in four separate areas and in four different levels of preparation. This was done on the basis of advisory committee recommendations and summarization data available pertaining to training needs in agricultural occupations.

Three criteria were followed in selecting these areas and levels: (1) they were to be broadly applicable to all parts of the nation; (2) they were to be typically illustrative of the type of program which could be developed by local schools with needs in these areas or in similar areas; and (3) they were not to duplicate previously completed efforts.

It was considered necessary to develop materials which would be illustrative of the type of program which could be developed for socioeconomically handicapped individuals within the secondary school setting. The area of horticulture was selected for this purpose.

Preliminary data and the opinions from representatives of agricultural business on projected needs were deciding factors in the preparation of illustrative materials for a technician program in agricultural chemicals technology at the post high school level. Further, recent materials produced by other agencies in the forestry area seemed to indicate less urgent needs for development in that area. The areas and types of programs finally selected to be developed follow.

1. Horticulture - Service Occupations
    a. Grades 11 and 12 for a program at the "semi-skilled" level of preparation for students with a disadvantaged background
    b. Duration of program to be one to two years
2. Agricultural Supply - Sales and Service Occupations
    a. Grades 11 and 12 for a two-year program at the "skilled" level of preparation
    b. Post high school program at the "skilled" level of preparation which could be extended over several years
3. Agricultural Machinery - Service Occupations
    a. Post high school level cluster of training needs for five different occupational titles
    b. Duration of program could be extended over several years

4. Agricultural Chemicals Technology

    a. Post high school program in a community college setting at the technician level of preparation

    b. Duration of program to be two years

At this time basic procedures were identified to be followed by the task force in the development and preparation of instructional materials. The general procedures follow:

1. Conduct a nationwide search to identify personnel and/or programs that are capable of making contributions to the project.

2. Visit successful programs, interrogate persons associated with these programs, and prepare detailed critiques of the programs visited which could be the guidelines for the development of curricular materials. Identify problems and successful features of these programs.

3. Synthesize materials that have been assembled.

4. Critically analyze, modify, rewrite, and develop materials emphasizing the competencies identified as being necessary for successful job performance in the different state studies of occupational needs.

5. Prepare materials in depth in each area specified and include examples of a number of programs in other areas.

At the task force meeting in January, sites were selected for the five area meetings which were to follow the national meeting in May. These meetings were designed to assist the different states in planning and evaluating pilot programs in agricultural occupations. Sites tentatively selected were: Montgomery, Alabama; Denver, Colorado; Chicago or Champaign, Illinois; New York City, New York; and Seattle, Washington. Dates for these meetings were to be determined later.

Dr. Stevens was asked to contact and solicit the services of persons who could assist him in the summarization of the different state studies. February 22, 1965, was set as the meeting date for sharing data from the state studies in agricultural occupations with other vocational services, employment agencies, and industrial personnel to secure their reactions and comments.

Related publications

As the project evolved, it became apparent that there was a need for an additional set of publications which would complement the four sets of curricular materials. The titles for the accompanying publications had not been determined, but the general content would be developed to:

1. Provide information to laymen on the need, pioneering achievements, progress of individuals who have been so trained, the demand for trained personnel, the scope of the field, conditions needed for success, and the cooperation with different industries and educational agencies. This publication would be of value to employers of workers in agricultural occupations, state and national legislators, editors, and others important in shaping public opinion.

2. Adapt portions of the off-farm agricultural occupations materials for use by the newspapers, radio, and television.

3. Assist state-level policy-making bodies, state superintendents, state department personnel, college and university administrators, and college personnel in occupational education.

4. Assist state boards and administrators in local and area schools with the policy and administrative decisions to be made in launching new programs.

5. Provide material for teachers in local and area schools to assist them in organizing and conducting programs in off-farm agricultural occupations, especially the occupational experience phase of such programs.

6. Report the research findings of cooperating states in the area of off-farm agricultural occupations.

7. Organize the research data into possible instructional areas and provide occupational guidance information for teachers and counselors.

At the end of January, 1965, steps were taken to identify persons in the different states who would be available to work at The Center with the project leaders in summarizing data from state studies and preparing the developmental materials outlined above.

Staff Personnel

The project was funded on February 15, 1965, permitting the project leaders to complete arrangements for task force personnel. Dr. George Luster, Associate Professor of Vocational Education, University of Kentucky, began working on March 1, on the overall development of curricular materials. This included working with task force personnel to develop a format for the materials and to coordinate the instructional materials development. He later developed specific materials in the agricultural supply - sales and service occupational area.

Mr. Alan Kahler, former teacher of vocational agriculture in Nebraska and teaching assistant in the Department of Agricultural Education at Iowa State University, came to the Project on March 1, 1965. His primary responsibility was to develop curricular materials in agricultural machinery -

service occupations at the post high school level. Mr. Howard Nowels, teacher of vocational agriculture in Fremont, Ohio, began working March 1, developing materials for the area of agricultural supply - sales and service occupations. Mr. Nowels first concentrated his efforts on the high school programs. Mr. James Utzinger, a teacher of vocational horticulture in the Grove City, Ohio, schools began working on March 22, to develop the curricular materials in horticulture - service occupations. He was assisted during the month of July by Mr. Peter J. Wotoweic, teacher of vocational horticulture at West Technical High School, Cleveland, Ohio. Mr. William Becker, teacher of vocational agriculture at Janesville, Wisconsin, had developed a program in off-farm occupations in cooperation with the Department of Agricultural and Extension Education of the University of Wisconsin. Mr. Becker began working with Mr. Nowels in the area of agricultural supply on April 5, 1965. All of these men were recognized as outstanding teachers and had experience in the specific area in which they were developing materials.

Mr. Donald Seaman, graduate student in agricultural education at The Ohio State University, began assisting Dr. Stevens on April 1 with the summarization of data from the different state studies. Mr. William Stevenson, Oklahoma State University staff member and director of a state occupational needs study, spent two months, beginning June 1, working with Dr. Stevens summarizing and analyzing occupational data from the different states.

Mr. Nowels became ill and upon doctors' advice resigned from the project on April 30. Mr. Becker then assumed primary responsibility for the area of agricultural supply and was assisted by Dr. Julius H. Lintner, former assistant state supervisor of agricultural education in Ohio, who began working on the project on May 1.

Dr. Jerry J. Halterman, Dean of Agriculture, Chico State College, Chico, California, was responsible for developing materials in agricultural chemicals technology.

Mr. Harold Anderson, formerly Assistant Professor of Agricultural Education, Colorado State University, began working July 1, on materials for planning and conducting occupational experience programs in off-farm agriculture.

Mr. Ramsey M. Groves, formerly teacher of vocational agriculture in New Mexico and a doctoral candidate at The Ohio State University, worked part-time on the total project.

Mr. Robert V. Kerwood, formerly Assistant Professor of Agricultural Education, West Virginia University, and currently a doctoral candidate and Research Associate at The Center, assisted in coordinating the final publication of all materials in the project.

Dr. Glenn Stevens, Professor of Agricultural Education at Pennsylvania State University, assumed the major responsibility for the publication in Guidance for Off-Farm Agriculture.

In August, 1965, Dr. James W. Hensel, formerly Assistant Professor, University of Wisconsin, joined the professional staff at The Center as Specialist in Agricultural Education. He assumed the role of coordinating the final publication of the Agricultural Chemicals Technology and Guidance materials and of completing the final requirements of the project grant.

Dr. James E. Christiansen, Assistant Professor, University of Florida, worked as a project staff member during his final year of graduate work at The Ohio State University. His major responsibilities were in preparing the final drafts for publication, based on the technical and editorial reviews. Dr. Christiansen also wrote the original draft for the final report of the project and served as a reviewer for the Agricultural Chemicals Technology publication.

In addition to the task force personnel, other persons served as consultants or prepared specific materials for the project. These persons and their areas of specific contributions were:

Dr. Homer V. Judge Department of Agricultural Education University of Massachusetts Amherst, Massachusetts	Summarization of State Data March 15-20
Robert E. Steffy Department of Agricultural Education Pennsylvania State University University Park, Pennsylvania	Agricultural Supply-Salesmanship March 22-26
Dr. William Hull Department of Agricultural Education Pennsylvania State University University Park, Pennsylvania	Agricultural Supply-Human Relations March 28-April 9
Dr. J. R. Warmbrod Department of Vocational Education University of Illinois Urbana, Illinois	Agricultural Supply April 12-22
V. B. Hairr, State Supervisor Agricultural Education State Department of Public Instruction Education Building Raleigh, North Carolina	Agricultural Machinery April 12-16
Dr. Le Roy Barker Professor of Agronomy Chico State College Chico, California	Agricultural Chemicals Technology
Dr. H. Dean McNeilly Chairman, Department of Agriculture Delta College Stockton, California	Agricultural Chemicals Technology

Dr. E. D. DeRemer, Director Special Agriculture Programs Northeastern Junior College Sterling, Colorado	Agricultural Chemicals Technology
Dr. Jordon Smith Professor of Agronomy Chico State College Chico, California	Agricultural Chemicals Technology
Dr. E. A. Tarone Chairman, Department of Agriculture Modesto Junior College Modesto, California	Agricultural Chemicals Technology
Earl Scott MDTA Instructor Jefferson City Schools Jefferson, Ohio	Agricultural Machinery Tractor Repair July 19-28
Martin Rehmert Teacher of Vocational Agriculture New Knoxville, Ohio	Agricultural Machinery Metal Fusion August 2-6
Robert H. White Graduate Assistant The Ohio State University Columbus, Ohio	Agricultural Supply Farm Petroleum September 14-28
C. G. Dawson, Consultant North Carolina Department of Community Colleges Department of Public Instruction Raleigh, North Carolina	Program Visitation, Analysis, and Preparation of In-depth Critiques for Project Staff Members
Linwood Bailey, Manpower Coordinator Defense Activity Staff Policy and Program Appraisal Division Agricultural Stabilization and Conservation Service U. S. Department of Agriculture Washington, D. C.	Guidance
Emanuel Weinstein Occupational Analyst Program Services Branch U. S. Office of Education Washington, D. C.	Guidance

It will be noted that the project staff, including those actively involved and contributing to the publication series, included staff members from fifteen states.

Second Project Advisory Committee Meeting

As task force efforts progressed, it was thought advantageous to again invite people knowledgeable in the area of off-farm agricultural occupations to an advisory meeting on March 15, 1965. The purpose of this meeting was to test the plans, proposals, and alternatives suggested by staff with the advisory group. It was hoped that the group would offer comments and suggestions concerning the plans for the development of materials for programs of off-farm occupational education that were being considered by task force personnel. The list of persons attending this advisory meeting is included as Appendix "C." The group included representatives of agricultural machinery dealerships, teacher educators working with programs in depressed areas of the deep South, representative of a curricular materials service, representatives from the division of vocational guidance in a state department of education, a personnel development director for a large Farm Bureau cooperative, a teacher educator from the field of distributive education, and the Chief, Agricultural Occupations, United States Office of Education.

The persons attending this advisory meeting provided task force personnel with specific direction in the program development and curricular aspects of the project. The general format of the curricular materials proposed by task force personnel was accepted and endorsed by this advisory group. A specific outgrowth of the advisory meeting was the design for a national advisory meeting to be held in April.

Another outgrowth of this meeting was the establishment of channels of communication between persons in education and persons representing different power structures in agricultural business and industries. The two-way line of communications established here paved the way for increased understanding and appreciation of mutual concerns in both the national meetings and area meetings which followed. These contacts with people from industry reinforced and accentuated the need for establishing programs in off-farm occupations.

Activities Prior to April Advisory Meeting

During the month of March, dates and locations were established for five regional conferences on developing programs for off-farm agricultural occupations to be held during the months of May and June. It was necessary to shift the southern area conference from Montgomery, Alabama, to Atlanta, Georgia. These conferences were to serve state staff and local level personnel who would be developing new types of programs in off-farm occupations. During March, most of the project staff personnel responsible for developing curricular materials began their work. Schedules were established for visits to key programs in off-farm occupations across the nation. Among the programs visited during March and the following months were:

Agricultural Supply	Forsyth Technical Institute Winston Salem, North Carolina

Agricultural Supply	Reidland High School Paducah, Kentucky
Agricultural Supply	Springfield Senior High School Springfield, Ohio
Agricultural Supply and Agricultural Chemicals Technology	Northeastern Junior College Sterling, Colorado
Horticulture	Camden County Joint Vocational School Merchantville, New Jersey
Horticulture	Rockland County Center of Technology and Education West Nyack, New York
Horticulture	Philadelphia High School for Horticulture Philadelphia, Pennsylvania
Agricultural Machinery	Alexandria Area Technical School Alexandria, Minnesota
Agricultural Machinery	Jefferson High School Jefferson, Ohio

These programs were identified on the basis of recommendations made by persons acquainted with the needs in off-farm agricultural occupations and emerging programs. In addition, an examination of materials concerning these programs prepared by people involved in them served as a basis for selection. Materials were graciously furnished to the project staff by persons conducting the programs.

Also, during March, decisions were made concerning the length of the programs for which materials were to be developed on the basis of the preliminary data already received and summarized from state occupational studies. In analyzing data from the different states, task force personnel were reminded that a lack of comparative data made the process of analyzing information for nation-wide application extremely difficult. It was obvious that it would take longer than had been originally anticipated to develop usable conclusions based upon these data. Based upon factor analysis and extrapolation, common elements from the developmental research studies were drawn and synthesized for use by project personnel.

Priorities were established for the development of the specific materials which were to be outgrowths of this project. High priority was given to the preparation of the publication pertaining to the research findings of the various states. High priority was also given to the development of those materials which would serve as guidelines in policy and administrative decisions for persons undertaking new programs in off-farm occupations. It was necessary to put greater emphasis on these program developmental materials because people in schools across the nation would need this type of assistance before they could intelligently plan new programs and utilize the instructional materials being developed. It was also necessary during this period to develop working definitions of terms such as "technical education," "vocational skills," and "occupational education" to furnish a common ground of understanding.

National Advisory Meeting for Developing Programs of Education in Off-Farm Agricultural Occupations

On April 5 and 6, 1965, forty-one persons from across the nation met on the campus of The Ohio State University as a national project advisory committee to give direction to the development of educational programs in this area. These people represented vocational agriculture, trade associations, other vocational services, different institutional settings, supporting disciplines, and business and industrial organizations directly associated with off-farm agriculture. Representatives from sociology, rural sociology, agricultural economics, teacher education, state supervisory staffs, community colleges, land grant colleges, and area vocational schools attended this conference. A complete list of those who attended has been included as Appendix "D."

The persons participating in this conference were charged with providing task force personnel with specific counsel and suggestions to be considered in preparing program development and curriculum materials. Among the items presented by the advisory committee to the task force for consideration were the following:

1. Materials to be developed must consider the age and maturity level required by prospective employers.

2. There is a need for more programs at the post high school level.

3. Successful programs cannot be developed unless cooperation with the off-farm business or industries concerned is obtained.

4. A joint responsibility exists between industry and education for the in-service education or retraining of present employees. Because more vertical integration is taking place among companies engaged in off-farm agriculture, fewer companies with larger numbers of employees needing more uniform programs of pre-employment and in-service education will result.

5. Programs such as those proposed cannot operate effectively unless local or area advisory councils are utilized to help guide and direct the program.

6. Attention should be given to procedures for updating the materials developed by this particular project.

7. In some instances, it is necessary to seek out the advice of persons in those businesses and industries in off-farm occupational areas who are on the "growing edge," and are facing problems in training personnel that the vast majority of such businesses have not yet faced.

8. There is a need for continuing, systematic research on both the immediate employment and long-range projected needs.

9. Schools have a responsibility for teaching occupational "fundamentals"; industry has the responsibility for moving men and women ahead within the job and organization.

10. The need for competency in communications skills, such as reading, writing, working with people (human relations), and developing proper personal attitudes, was also expressed by some business and industry people attending the conference.

11. Duplication among agencies in providing off-farm occupational training programs needs to be limited, thereby resulting in increased savings and improved educational effectiveness.

12. More precise and comprehensive terminology is needed by people developing these programs so that they are universally understood.

13. School people present expressed the viewpoint that "we expect industry to absorb our product, therefore we must have a product that industry wants. Consequently, we must expect industry to explain what skills and abilities are needed for entry as well as advancement in occupations."

14. The programs being established will not be of fullest value if the students enrolled in them do not secure adequate vocational guidance. Consequently, vocational guidance counselors and teachers working with individual students need to: (a) determine interests, (b) expand on knowledge about jobs available, (c) note the students' individual abilities, and (d) explore different occupations for which a person would be best fitted.

15. While being concerned with working with business and industry, it is imperative that persons planning such programs not overlook the possibility of cooperating with other vocational and educational services. The Department of Labor, employment security agencies, the Agricultural Extension Service, four-year educational institutions, privately operated educational institutions, and the general public are all vitally concerned with off-farm occupational education.

16. The advisory meeting members endorsed the format for materials and general plan of operation being followed in the project.

17. The problem of low-entry wages in some agricultural occupations was identified as a deterrent to program development. The opinion was expressed that entry wages should improve as the qualifications of entry workers improve.

Activities Prior to National Conferences on Off-Farm Agricultural Occupations

At the conclusion of the April advisory committee conference, selected supervisors and teacher educators stayed to assist staff members in planning the National Conference on Off-Farm Agricultural Occupations. These men also assumed leadership roles in the May conference.

After the April meeting, project task force personnel standardized course titles by description and by areas. It was decided to categorize job titles. By the beginning of May complete summarization data had been received from fifteen states.

Programs in operation in the different states were evaluated as task force personnel began preparing program development and curriculum materials. The time between the April conference and the May national conference was devoted to preparation of project materials in all areas. By the time the national conference was held in May, preliminary program development materials concerning policies and administrative decisions in off-farm programs as well as a tentative summary of research findings had been completed. Instructional materials had been prepared in tentative form for approximately 40 percent of the modules in horticulture, agricultural supply, and agricultural machinery. Content in the area of agricultural chemicals technology had been outlined.

The National Conference on Off-Farm Agricultural Occupations

From May 4 to 7, 1965, 153 individuals from 49 states, not including task force personnel, attended a national conference on off-farm agricultural occupations on the campus of The Ohio State University. A complete list of the persons attending appears as Appendix "E." The conference was developed primarily for teacher educators and state supervisory personnel in agricultural education. Representatives from agricultural business and industry, state colleges and universities, the U. S. Office of Education, area vocational schools, community colleges, state employment services, and state departments of public instruction also attended this conference.

The primary purposes of the conference were:

1. To present to personnel from the respective states an outline for developing new programs in off-farm agricultural occupations.
2. To show the nation-wide need for such programs.

3. To present the preliminary materials pertaining to development of such programs as well as illustrative curricular materials already developed by project personnel.

4. To plan five area meetings which would focus on the development of local pilot programs.

In the evaluation of this conference, the persons attending reflected an interest in and a need for developing such programs in their respective states. They also sought specific help in establishing such programs, especially in states which had small state staffs. One common feeling expressed was that the conference itself should have been held a year earlier.

In analyzing the evaluation instruments returned by conference participants, it was interesting to note that some persons had not been aware, until this conference, of the willingness of business and industry to cooperate with education in establishing needed programs. It was the judgment of the task force that some conference participants were ignoring study data and viewing needed developments in this area in light of modifying existing traditional programs rather than developing new or parallel programs focusing primarily on off-farm agricultural occupations. That is to say, some apparently felt that "some instruction" could be injected into certain years of the present production-oriented program and do the job that needed to be done. The task force, recognizing the impact of the data, the training requirements for present and emerging occupations, and counsel from agricultural occupations employers, resolved to place increasing emphasis during the remainder of the project on the development of programs devoted primarily, if not exclusively, to off-farm agricultural occupations.

In summarizing the comments of the participants, task force personnel expressed concern that materials being developed for this purpose would be "prostituted" by being "inserted in" existing programs in many states. Developing occupational competency in off-farm occupations requires a complete, coordinated program of education which is tailored for occupational entry. This type of program cannot be developed by adding a module or two to an existing traditional program. To help foster this idea of developing a complete program in any given area, task force personnel decided that the curriculum materials now growing out of the work of the project would be sold to the states only as complete sets.

Conference participants discussed extensively the following leadership tasks of state staff personnel in developing programs in off-farm agricultural occupations: (1) determining administrative responsibility; (2) changing existing programs; (3) developing and evaluating departmental programs; (4) providing qualified personnel for such work; (5) providing occupational experience; and (6) providing vocational education in agriculture to those not benefiting from the regular program. In addition, time was spent by state staff personnel on the problem of the establishment of priorities within states in developing this type of program.

Activities Subsequent to National Conference on Off-Farm Occupations

The two weeks following the national conference at Ohio State were spent by task force personnel in the preparation of project materials and in preparation for five area meetings on off-farm occupations to be held across the country. The rationale among project staff personnel was that time spent in activities which helped the dissemination of materials and the resulting establishment of local pilot programs was time well spent. These meetings took place in New York City on May 17-19, 1965; Chicago on May 24-26; Pullman, Washington on June 2-4; Denver, Colorado on June 9-11, 1965; and Atlanta, Georgia on June 21-23, 1965.

Area Meetings

While the National Conference in Ohio had focused attention on responsibilities and activities of state staff personnel in the respective states, the area meetings focused on the responsibilities and activities in which local school administrative officers, local boards, vocational coordinators, vocational teachers, and lay personnel could engage to determine the needs for initiating such programs at the local level. The role of state staffs in initiating pilot programs was also included.

A total of 332 persons, excluding task force personnel, attended area meetings. Thirty percent of these persons were local teachers, 50 percent of those attending were the state staff personnel, who, by and large, would be responsible for providing guidance for these programs in their respective states. Representatives from agricultural industries, other vocational services, and educational institutions in the different areas attended these meetings. The roster of those attending area meetings is attached as Appendix "F."

The Development of Curricular and Supporting Materials

Following the last area meeting, the task force personnel devoted their energies to completing the curricular and program development materials. One of the major objectives of the project was to develop curricular guides and supporting materials which were determined to be most needed in the area of off-farm agricultural occupations. Therefore, the completion of a series of publications was given high priority by the task force.

The following publications were prepared during the summer of 1965 to assist educators in developing programs in off-farm agricultural occupations:

1. Policy and Administrative Decisions Needed When Introducing Vocational and Technical Education in Agriculture for Off-Farm Occupations (for boards and administrators of local schools, area schools, and colleges)

2. Vocational and Technical Education in Agriculture for Off-Farm Occupations (for counselors, teachers, board members, and administrators at all levels)

3. Summary of Research Findings in Off-Farm Agricultural Occupations

4. Planning and Conducting Cooperative Occupational Experience in Off-Farm Agriculture

5. Occupational Guidance for Off-Farm Agriculture (for teachers, guidance counselors, and students)

6. Organizing to Provide Agricultural Education for Off-Farm Occupations (of primary value to state staffs when working with groups planning programs in off-farm occupations. This consists of 18 mimeographed sheets from which transparencies can be made.)

In addition, curricular materials were developed by the task force to assist teachers in developing courses in four subject areas:

A. Agricultural Machinery - Service Occupations

These materials were created for a course designed to develop at the post high school level the competence needed for occupational entry and advancement in service occupations in agricultural machinery dealerships.

The complete set of curricular materials in this area consists of a detailed course outline including suggestions for developing this course as well as sixteen instructional modules. These modules are as follows:

1. Organization and Management of Agricultural Machinery Dealerships
2. Agricultural Machinery Service Department Operating Procedures
3. Agricultural Machinery Parts Department Operating Procedures
4. Agricultural Salesmanship
5. Human Relations in Agricultural Occupations
6. Metal Fusion and Fabrication Welding
7. Agricultural Machinery Assembly and Lubrication
8. Mechanical Power Transfer Systems

9. Hydraulic Power Transfer Systems
10. Adjustment, Maintenance, and Repair of Tillage, Planting, Spraying, and Fertilizing Machinery
11. Adjustment, Maintenance, and Repair of Crop Harvesting Machinery
12. Adjustment, Maintenance, and Repair of Small Gasoline Engines
13. Tractor Tune-up and Maintenance
14. Gasoline Tractor Engine Systems
15. Diesel Engine Systems
16. Tractor Repair

B. Agricultural Supply - Sales and Service Occupations

These materials have been prepared for a course at the high school level to prepare high school students for successful job entry in retail businesses that sell agricultural supplies and services. The course is largely limited to preparing students to sell production agricultural supplies, such as feeds, seeds, fertilizer, chemicals, and small items and equipment of a similar use. The course is not intended to prepare workers to sell major agricultural items or supplies such as farm machinery, tractors, heavy building materials.

The complete set of curricular materials in this area consists of a detailed course outline including suggestions for developing this course as well as twelve instructional modules. These modules are as follows:

1. Career Opportunities in Agricultural Sales and Service
2. Orientation to the Supervised Occupational Experience Program
3. Human Relations in Agricultural Occupations
4. Agricultural Salesmanship
5. Organizations and Functions of Agricultural Businesses
6. Business Procedures
7. Feeds - Sales and Service
8. Crop, Lawn, and Garden Seeds - Sales and Service

9. Fertilizers - Sales and Service

10. Agricultural Chemicals - Sales and Service

11. Petroleum and Petroleum Products - Sales and Service

12. Miscellaneous Agricultural Supplies and Small Equipment - Sales and Service

C. Horticulture - Service Occupations

These materials have been prepared for a course at the high school level to develop the degree of competence needed for occupational entry as service workers in such establishments as nurseries, garden centers, greenhouses, golf courses, and grounds maintenance departments.

The complete set of curricular materials in this area consists of a detailed course outline including suggestions for developing this course as well as twelve instructional modules. These modules are as follows:

1. Exploring Occupational Opportunities in Ornamental Horticulture

2. Identifying Horticultural Plants

3. Propagating Horticultural Plants

4. Growing Horticultural Plants

5. Using Soil and Other Plant Growing Media Effectively

6. Recognizing and Controlling Plant Pests

7. Constructing, Maintaining, and Using Plant Growing Structures

8. Agricultural Salesmanship

9. Establishing and Caring for Lawns and Turf

10. Operating, Repairing, and Maintaining Small Power Equipment

11. Using and Caring for Ornamental Plant Materials and Landscape Structures

12. Human Relations in Agricultural Occupations

D. Agricultural Chemicals Technology

These materials were designed to provide an intensive two-year full-time program of study and work experience for students in agricultural chemicals technology. The courses in this post high school program are planned and organized to provide the chemical, biological, business, mathematical, and agricultural theories combined with procedural and technical skills involved in their application to the broad field of agriculture.

A complete set of curricular materials in this area include a suggested two-year post high school curriculum and course outlines and eight instructional modules. These modules are as follows:

1. The Use of Chemicals as Fertilizers
2. The Use of Chemicals as Insecticides - Plants
3. The Use of Chemicals as Soil Additives
4. The Use of Chemicals as Fungicides, Bactericides and Nematocides
5. The Use of Chemicals to Control Field Rodents and Other Predators
6. The Use of Chemicals as Herbicides
7. The Use of Chemicals in the Field of Farm Animal Health (Nutrition, Entomology, Pathology)
8. The Use of Chemicals as Plant Regulators

In the development of instructional materials and supporting publications, a general procedure was followed to maximize validity and acceptance. Drafts of materials were prepared based on findings of the agricultural occupations studies, site visits to outstanding programs, and the best available materials. These drafts were submitted to vocational education teachers experienced in the specific area, to subject matter specialists in universities and industry, and to prospective employers. These technical reviews were then refined and synthesized before a final editorial review was given the publication.

Copies of all publications were mailed to head state supervisors and head teacher educators in agricultural education throughout the United States. Vocational agriculture teachers, vocational educators, subject matter specialists, agricultural businessmen, and others who reviewed the materials for accuracy and appropriateness of content also received copies of the publications. Twenty-five copies of each publication were mailed to the Office of Education to fulfill contract obligations.

Evaluating the Project

Several techniques were utilized to evaluate the worth of the overall project.

1. Participants in the May, 1965, national conference were asked to evaluate the strengths and weaknesses of the project in detail.

2. Evaluation sheets were included with each set of materials distributed to persons in the respective states; these sheets were to be returned by the user after completion of each module taught or after using each publication.

3. Plans are underway for monitoring and evaluating pilot programs in operation which are using the materials developed as an outgrowth of this project.

4. During the week of June 27 - 30, 1966, The Center sponsored a National Seminar on Evaluation and Program Planning in Agricultural Education. A significant portion of the seminar was devoted to the evaluation of the off-farm agricultural occupations project materials. One of the major purposes of the seminar, supported by the Sears-Roebuck Foundation, was to provide an opportunity for state leaders in agricultural education and representatives of other vocational services to pool their resources and thinking in planning for effective measurement and evaluation of pilot programs in off-farm agricultural occupations. The authors of each of the several publications acted as chairmen of small group discussions during the seminar for the purpose of gaining firsthand information from teacher educators and supervisors concerning the value and utility of the materials.

5. An extensive review of materials was made by persons qualified in the respective areas of specialization. These reviewers provided much valuable assistance and guidance in the development of materials resulting from this project. Those persons who served as reviewers of materials are listed as Appendix "A."

Strengths of the Project

1. States were provided assistance in completing and synthesizing their studies of agricultural occupations.

2. Persons from disciplines outside agriculture who could bring fresh, and, hopefully, unbiased viewpoints were involved to give direction to the programs to be undertaken. This involvement took place at the advisory committee meetings, during the National Conference on Off-Farm Occupations, and at the five area meetings. Persons were involved from the areas of sociology, rural sociology, agricultural economics, economics, manpower

economics, the National Academy of Sciences, community colleges, four-year colleges and universities, area vocational schools, technical institutes, and agricultural industries representing private concerns or trade associations.

3. Area meetings with primary emphasis on the development of local and area pilot programs permitted the active involvement of persons at the "action" level who would not have been able to benefit as quickly if they had been left to their own devices, especially as it permitted reduction of the time lag between awareness and decision making.

4. An awareness was created on the part of state staff personnel that cooperation and assistance can be secured in establishing these programs from other educational areas and from agricultural industry or businesses.

5. The national conference and the following area meetings provided a setting for the face-to-face interchange of ideas and discussions of mutual problems in developing new programs which would not have been possible in another manner.

6. One outcome of the project was the ability to entice personnel uniquely qualified in their respective fields to join the task force on a short-term basis to prepare specific materials. Also, the ability of the task force personnel to utilize extensively the experience of persons in agricultural businesses and industries who were aware of and were facing the problems in the preparation of employees contributed to the validity of the materials produced. The wholehearted cooperation provided by other vocational services permitted task force personnel to benefit from their experience and avoid previous errors. Another strength of the project was the opportunity to project efforts at an accelerated rate on a national basis.

7. Interstate cooperation was fostered in the development of instructional materials and supporting activities.

8. Materials developed were based on the recent research findings and advice from national leaders in agricultural industry who were able to project employment requirements.

Problems Associated with the Project

1. The lateness in securing project approval for funding from the Office of Education delayed the entire project schedule and made it difficult to have materials ready for the 1965-1966 school year.

2. Limitations of time and resources made it impossible to identify and evaluate all on-going programs in off-farm agricultural occupations.

3. Within this project it would have been desirable to have resources to contract with states and local districts for the conducting of pilot programs to carefully field test the instructional materials and supporting publications.

4. If the entire project schedule could have been advanced through earlier funding and accelerated efforts, it would have been desirable to have conducted some extensive workshops for state staff personnel who, in turn, would have been responsible for conducting workshops for teachers initiating programs in their states. This was accomplished to some degree on an informal basis, but not to the degree desired. Such workshops could also have addressed themselves to the operational level problems of involving other vocational services in such programs.

5. States were not able to maintain their schedules for completing research projects; hence, it was impossible to utilize all state research data in the synthesis.

6. Despite the efforts exerted through the two research coordination conferences, individual state project designs varied, therefore, contributing to the problem of developing comparative data.

SUMMARY

The major objectives of this project were accomplished through the series of specialized publications listed on Pages 19 to 23 of this document. This publication constitutes a report of the project and the procedures used in developing these specialized publications.

The major purpose of this project was to determine the adjustments and extensions needed in the high school and post high school curricular patterns of vocational education in agriculture to more effectively meet preparatory training needs in off-farm agricultural occupations. The summarization, interpretation, and resulting synthesis of the studies on agricultural occupations completed by twenty-six states provided the basis for determining extensions and adjustments in the curricular patterns.

Six specific objectives were established for the study. These were:

1. To identify the major occupations which require competency in agriculture.

2. To determine the agricultural competencies needed by workers in these occupations.

3. To cluster the major agricultural occupations which require similar competencies.

4. To develop and refine the curricular guides and supporting materials which were most needed and feasible for the major clusters of agricultural occupations.

5. To examine the data from the studies on agricultural occupations for other implications, giving particular attention to:

   a. Programs for disadvantaged youth.

   b. Projected employment opportunities in major agricultural occupations.

   c. Needed adjustments in administrative and supervisory procedures.

   d. Organizational structure for providing vocational education in agriculture.

   e. Needed adjustments in teaching and coordinating methods.

   f. Pre-service and in-service education of teachers.

   g. Selection, placement, and follow-up of students.

6. To train key state leaders in the use of the curricular guides and supporting materials.

A task force of educational leaders was assembled at The Center early in 1965 to work toward the accomplishment of the objectives. Advisory Committee meetings were held with representatives of agricultural business and industry, teacher educators, and state department personnel to gather suggestions concerning the development of materials for programs in off-farm agricultural occupations. The general format of the curricular materials was endorsed by this advisory group. Various off-farm agricultural programs in operation in the states were evaluated by the task force personnel as they began preparing curriculum materials.

In May, 1965, 153 individuals from forty-nine states attended a national conference at The Ohio State University to discuss the various phases of the off-farm agricultural occupations project. The primary purposes of the conference were:

1. To present to personnel from the respective states an outline for developing new programs in off-farm agricultural occupations;

2. To show the nation-wide need for such programs;

3. To present the preliminary materials pertaining to development of such programs as well as illustrative curricular materials developed by project personnel;

4. To plan five area meetings which would focus on the development of local pilot programs.

Following the national conference at The Ohio State University, the task force personnel prepared project materials for five area meetings on off-farm occupations to be held during May and June in New York City, New York; Chicago, Illinois; Pullman, Washington; Atlanta, Georgia; and Denver, Colorado. The primary purpose of the area meetings was to focus attention on the responsibilities and activities of local administrative officers, school boards, teachers, and the general public in initiating programs in the off-farm occupations. The meetings were attended by a total of 332 persons who also assisted in revising the project materials to make them more effective for their area.

After the last area meeting, the task force personnel devoted their energies to completing the curricular and program development materials. One of the major objectives of the project was to develop curricular guides and supporting materials which were determined to be most needed in the area of off-farm agricultural occupations. Therefore, the completion of a series of publications was given high priority by the task force.

The following publications were prepared during the summer of 1965 to assist educators in developing programs in off-farm agricultural occupations:

1. Policy and Administrative Decisions Needed When Introducing Vocational and Technical Education in Agriculture for Off-Farm Occupations (for boards and administrators of local schools, area schools, and colleges)

2. Vocational and Technical Education in Agriculture for Off-Farm Occupations (for counselors, teachers, board members, and administrators at all levels)

3. Summary of Research Findings in Off-Farm Agricultural Occupations

4. Planning and Conducting Cooperative Occupational Experience in Off-Farm Agriculture

5. Occupational Guidance for Off-Farm Agriculture (for teachers, guidance counselors, and students)

6. Organizing to Provide Agricultural Education for Off-Farm Occupations (of primary value to state staffs when working with groups planning programs in off-farm occupations. This consists of 18 mimeographed sheets from which transparencies can be made.)

In addition, curricular materials were developed by the task force to assist teachers in developing courses in four subject areas:

1. Agricultural Machinery - Service Occupations

   These materials were created for a course designed to develop the competence needed at the post high school level for occupational entry and advancement in service occupations in agricultural machinery dealerships.

   The complete set of curricular materials in this area consists of a detailed course outline including suggestions for developing this course as well as sixteen instructional modules.

2. Agricultural Supply - Sales and Service Occupations

   These materials were prepared for a course at the high school level to prepare high school students for successful entry in retail businesses that sell agricultural supplies and services. The course was largely limited to preparing students to sell production agricultural supplies, such as feeds, seeds, fertilizer, chemicals, and small items and equipment of a similar use.

   The complete set of curricular materials in this area consisted of a detailed course outline including suggestions for developing this course as well as twelve instructional modules.

3. Horticulture - Service Occupations

   These materials were prepared for a course at the high school level developing the degree of competence needed for occupational entry as service workers in such establishments as nurseries, garden centers, greenhouses, golf courses, and grounds maintenance departments.

   The complete set of curricular materials in this area consisted of a detailed course outline including suggestions for developing this course as well as twelve instructional modules.

4. Agricultural Chemicals Technology

   These materials were designed to provide an intensive two-year full-time program of study and work experience education for students in agricultural chemicals technology. The courses in this post high school program were planned and organized to provide the chemical, biological, business, mathematical, and agricultural theories combined with procedural and technical skills involved in their application to the broad field of agriculture.

A complete set of curricular materials in this area included a suggested two-year post high school curriculum and course outline and eight instructional modules.

Copies of all publications were mailed to head state supervisors and head teacher educators in agricultural education throughout the United States. Vocational agriculture teachers, subject matter specialists, agricultural businessmen, and others who reviewed the materials for accuracy and appropriateness of content also received copies of the publications. Twenty-five copies of each publication were mailed to the Office of Education to fulfill contract obligations.

APPENDIXES

PRECEDING PAGE BLANK- NOT FILMED

APPENDIX "A"

Evaluators of Materials Prepared by Task Force Personnel

The following persons evaluated selected portions of the program developmental and curricular materials prepared within their area of specialization. Their comments and constructive criticisms aided materially in strengthening the value of these materials.

Policy and Administrative Decisions Needed When Introducing Vocational and Technical Education in Agriculture For Off-Farm Occupations

Harry G. Beard	Associate Professor of Education School of Education	North Carolina State University Raleigh, North Carolina
James Hensel	Specialist in Agricultural Education	The Center for Research and Leadership Development in Vocational and Technical Education The Ohio State University Columbus, Ohio
Robert Kozelka	Chief of Business and Distributive Education	State Department of Education Springfield, Illinois
William B. Logan	Professor and Director Distributive Education Institutes, College of Education	The Ohio State University Columbus, Ohio
Sidney S. Sutherland	Professor Emeritus Department of Agricultural Education	University of California Davis, California
Ralph Wenrich	Head, Department of Vocational and Practical Arts Education, College of Education	University of Michigan Ann Arbor, Michigan

Vocational and Technical Education in Agriculture For Off-Farm Occupations

Harry G. Beard	Associate Professor of Education School of Education	North Carolina State University Raleigh, North Carolina
James W. Hensel	Specialist in Agricultural Education	The Center for Research and Leadership Development in Vocational and Technical Education The Ohio State University Columbus, Ohio
Robert Kozelka	Chief of Business and Distributive Education	State Department of Education Springfield, Illinois
William B. Logan	Professor and Director Distributive Education Institutes, College of Education	The Ohio State University Columbus, Ohio
Sidney S. Sutherland	Professor Emeritus Department of Agricultural Education	University of California Davis, California
Ralph Wenrich	Head, Department of Vocational and Practical Arts Education, College of Education	University of Michigan Ann Arbor, Michigan

Summary of Research Findings in Off-Farm Agricultural Occupations

William W. Stevenson	Director, Research Coordinating Unit for Vocational Education	Oklahoma State University Stillwater, Oklahoma
Homer V. Judge	Head, Agricultural Education Department	University of Massachusetts Amherst, Massachusetts
Don F. Seaman	Graduate Assistant in Agricultural Education	The Ohio State University Columbus, Ohio
Leonard Giambra	Graduate Assistant in Psychology	The Ohio State University Columbus, Ohio

Joseph W. Duncan	Chief, Manpower and Regional Economics Division	Battelle Memorial Institute Columbus, Ohio

Planning and Conducting Cooperative Occupational Experience in Off-Farm Agriculture

Donald Brock	Vocational Agriculture Teacher-Coordinator	Highland Park High School Topeka, Kansas
E. M. Chinnock	Vocational Coordinator	Cloquet High School Cloquet, Minnesota
Raymond Clark	Professor, Agricultural Education Department	Michigan State University East Lansing, Michigan
Mike Cullen	Director	Willmar Area Vocational Technical School Willmar, Minnesota
Stan Lancaster	Assistant State Supervisor Agricultural Education	Denver, Colorado
William B. Logan	Professor and Director Distributive Education Institutes, College of Education	The Ohio State University Columbus, Ohio
Gordon McMahon	Director, Division of Vocational-Technical Education	State Department of Education Oswego, New York
Bernard Nye	State Supervisor of Distributive Education	State Department of Education Columbus, Ohio
Clayton Riley	Vocational Agriculture Instructor	Reidland High School Paducah, Kentucky
Paul Shoemaker	Distributive Education Coordinator	Chillicothe High School Chillicothe, Ohio
Darrel Way	Livestock Specialist Agricultural Education	State Department of Education Little Rock, Arkansas

Agricultural Machinery Service Occupations

Robert Alfred	Parts Distributor	Massey-Ferguson, Inc. Columbus, Ohio
R. C. Belt	Manager	R. C. Belt, Inc. Washington Court House, Ohio
George B. Blum, Jr.	Assistant Professor of Agricultural Engineering	North Carolina State University Raleigh, North Carolina
C. E. Boggs	District Service Manager	Allis Chalmers Manufacturing Company Columbus, Ohio
Joseph Bradley	Manager	Bradley Implement Company Algona, Iowa
C. E. Bundy	Teacher Educator in Agricultural Education	Iowa State University Ames, Iowa
R. W. Canada	Professor of Agricultural Education	Colorado State University Fort Collins, Colorado
Richard Carr	District Service Manager	John Deere Company Columbus, Ohio
L. A. Coomer	General Supervisor	Farm Equipment Service Chicago, Illinois
Ray Cunningham	Assistant District Service Manager	International Harvester Company Columbus, Ohio
Emory H. Dixon	Educational Consultant	Hobart Welding School Troy, Ohio
Raymond C. Dunlavy	Supervisor of Training	Hobart Welding School Troy, Ohio
Lewis Eggenberger	Teacher Educator Agricultural Education Department	Texas Technological College Lubbock, Texas
J. M. Fare	Agricultural Engineering Department	North Carolina State University Raleigh, North Carolina

Alfred Fozer	Field Engineer	The Lincoln Electric Co. Columbus, Ohio
Cliff Gerstenberger	Secretary-Treasurer	Iowa Retail Farm and Power Equipment Association, Inc. Des Moines, Iowa
L. L. Gibbons	Professor of Industrial Education	Colorado State University Ft. Collins, Colorado
Jerry Halterman	Instructor in Agricultural Engineering	Modesto Junior College Modesto, California
G. E. Henderson	Coordinator, Southern Association for Agricultural Engineering and Vocational Agriculture	University of Georgia Athens, Georgia
Thomas Hoerner	Instructor Agricultural Engineering Department	Iowa State University Ames, Iowa
Van H. Jarret	Associate Professor of Agricultural Education	Utah State University Logan, Utah
Arthur Johnson	Mechanics Instructor	Alexandria Area Vocational School Alexandria, Minnesota
Carlton Johnson	Associate Professor of Agricultural Engineering	The Ohio State University Columbus, Ohio
Robert E. Julian	Vocational Agriculture Instructor	Amphitheater High School Tucson, Arizona
W. M. Kirkpatrick	Associate Professor of Agricultural Engineering	California State Polytechnic College San Luis Obispo, California
Loren Larson	Parts Man Instructor	Alexandria Area Vocational School Alexandria, Minnesota
M. G. McCreight	Assistant Professor of Agricultural Education	University of Nebraska Lincoln, Nebraska
John Miller	District Service Manager	International Harvester Co. Columbus, Ohio
Harold M. Nestor	Instructor in Hydraulics	Columbus Area Technician School Columbus, Ohio

A. F. Otto	District Parts Manager	John Deere Company Columbus, Ohio
Harlan Ridenour	Director of the Ohio Vocational Agriculture Curriculum Materials Service	The Ohio State University Columbus, Ohio
George Schelin	Mechanics Instructor	Alexandria Area Vocational School Alexandria, Minnesota
Ralph G. Schweizer	President	Burlington Equipment Machinery Corp. Burlington, Iowa
Earl Scott	MDTA Instructor	Jefferson Area Schools Jefferson, Ohio
John Shuey	District Dealer Development Manager	International Harvester Co. Columbus, Ohio
T. J. Wakeman	Instructor Department of Agricultural Engineering	Virginia Polytechnic Institute Blacksburg, Virginia
Dan Walton	District Service Manager	Massey-Ferguson, Inc. Columbus, Ohio
Charles Whitney	Secretary	Farm Power and Equipment Dealers of Ohio Columbus, Ohio
Ivan Winland	Coordinator	Jefferson Area Schools Jefferson, Ohio
James W. Zepplin	Instructor	Wausau Technical Institute Wausau, Wisconsin

Agricultural Supply Sales and Service Occupations

Hugh Aydelotte	Petroleum Manager	Franklin County Landmark Hilliards, Ohio
Roy O. Becker	Secretary-Manager	Ohio Seed Improvement Association Columbus, Ohio
V. A. Bergman	Manager, Salesman Training Division	Ralston Purina Company St. Louis, Missouri

Charles Besse	Director, Vocational Department	Southwestern High School Grove City, Ohio
Donald Brock	Vocational Agriculture Instructor	Park High School Minneapolis, Minnesota
Keith Brum	Field Manager	Geigy Agricultural Chemicals Yonkers, New York
Walter Callahan	Commercial Sales Manager	Landmark Cooperatives Columbus, Ohio
Daniel C. Chase	Head, Department of Agricultural Business Management	California State Polytechnic Institute San Luis Obispo, California
T. P. Christen	Farm Sales and Home Heating Sales	The Standard Oil Company Cleveland, Ohio
Harry L. Cook	Director of Research and Technical Service	Landmark Cooperatives Columbus, Ohio
Rex Cunningham	Vocational Agriculture Instructor	Arcadia High School Arcadia, Ohio
Garry L. Dean	Product Manager Pesticides Farm Supply Division	Landmark Cooperatives Columbus, Ohio
Jack Devitt	Vocational Agriculture Instructor	Ottoville High School Ottoville, Ohio
Alvin W. Donahoo	Secretary	Minneapolis Grain Exchange Minneapolis, Minnesota
James E. Dougan	Assistant State Supervisor Vocational Agriculture	State Department of Education Columbus, Ohio
H. B. Drake	Coordinator, Agri-business Technology	Springfield and Clark Co. Springfield, Ohio
Roger S. Dreyer	Executive Secretary	Ohio Petroleum Marketers Columbus, Ohio
H. E. Edwards	State Supervisor of Vocational Agriculture	State Department of Education Charleston, West Virginia
Dale T. Friday	General Manager, Farm Science Review and Extension Agronomist	The Ohio State University Columbus, Ohio

Clarence A. Gehrig	Executive Secretary	Ohio Council of Farmer Cooperatives, Inc. Columbus, Ohio
J. E. Girens	Assistant General Manager	Southern States Cooperative Richmond, Virginia
George Greenleaf	Executive Secretary	Ohio Grain and Feed Dealers Association Columbus, Ohio
C. Neilsen Griffith	Vice President, Membership and Public Relations	Landmark Cooperatives Columbus, Ohio
Paul Hartsook	Vocational Agriculture Instructor	Bowling Green High School Bowling Green, Ohio
Samuel G. Huber	Professor of Agricultural Engineering	The Ohio State University Columbus, Ohio
Ray M. Kesler	Vocational Agriculture Instructor	Morgantown High School Morgantown, West Virginia
Elton Kile	Elevator Manager	Plain City, Ohio
Ralph E. Kunze	Manager of Seed Services Seed and Fertilizer Division	Landmark Cooperatives Columbus, Ohio
Roy H. Lippert	Instructor, Agricultural Engineering	Modesto Junior College Modesto, California
George Luster	Associate Professor Agricultural Education	University of Kentucky Lexington, Kentucky
Howard P. Moore	Laboratory Supervisor Division of Plant Industry	Ohio Department of Agriculture Reynoldsburg, Ohio
Howard Nowels	Vocational Agriculture Instructor	Fremont High School Fremont, Ohio
Harry Plank	Vocational Agriculture Instructor	Green Local High School Smithville, Ohio
Paul F. Pulse	Director of Short Courses in Agriculture	The Ohio State University Columbus, Ohio
Thomas Pulse	High School Student	Hillsboro, Ohio
O. W. Randolph	Manager, Personnel and Public Relations	Moorman Manufacturing Co. Quincy, Illinois

Harlan Ridenour	Director of the Ohio Vocational Agriculture Curriculum Materials Service	The Ohio State University Columbus, Ohio
Clayton Riley	Vocational Agriculture Instructor	Reidland High School Paducah, Kentucky
William Ruth	Distributive Education Coordinator	Whitehall High School Whitehall, Ohio
Allan E. Settle	Director of Public Relations	Manufacturing Chemists' Association, Inc. Washington, D. C.
Paul Shoemaker	Distributive Education Coordinator	Chillicothe High School Chillicothe, Ohio
Ralph W. Tolbert	Sales Promotion Manager	Geigy Agricultural Chemicals Yonkers, New York
Charles C. Wanke	Manager	Case Feed and Produce Co. Janesville, Wisconsin
Richard E. Wells	Assistant Program Director, Feed Division	Landmark Cooperatives Columbus, Ohio
Jesse Yopp	Manager	Yopp's Seed Company Paducah, Kentucky

Horticulture
Service Occupations

Evan K. Alban	Professor of Vegetable Crops, Department of Horticulture and Forestry	The Ohio State University Columbus, Ohio
Rayalene Brizendine	Guidance Counselor	Pleasant View High School Grove City, Ohio
Ray Brush	Secretary	American Association of Nurserymen, Inc. Washington, D. C.
Donald Casey	Guidance Counselor	Pleasant View High School Grove City, Ohio

Richard D. Clugston	Vocational Agriculture Instructor	Bowie High School El Paso, Texas
C. C. Drawbaugh	Professor, Department of Agricultural Education	Rutgers University New Brunswick, New Jersey
Foster Franks	Supervisor, Parks and Forestry Division	Columbus, Ohio
Clyde Gordon	Superintendent	Spring Grove Cemetery Cincinnati, Ohio
Roy L. Hoffman	Manager	Hoffman Greenhouses Hilliard, Ohio
Robert P. Holdsworth, Jr.	Professor of Zoology and Entomology	The Ohio State University Columbus, Ohio
Allan Keil	Manager	Grove City Garden Center Grove City, Ohio
J. P. Mahlstede	Head, Department of Horticulture	Iowa State University Ames, Iowa
Kennard S. Nelson	Vice President	Jednak Floral Company Columbus, Ohio
Darrell Parks	Graduate Assistant Agricultural Education	The Ohio State University Columbus, Ohio
Robert E. Partyka	Associate Professor Botany and Plant Pathology	The Ohio State University Columbus, Ohio
Harold L. Porter	Chief, Plant Industry	Ohio Department of Agriculture Reynoldsburg, Ohio
E. C. Robert	Associate Professor, Turf Management Department of Horticulture	Iowa State University Ames, Iowa
Lloyd R. Roof	Landscape Superintendent	The Ohio State University Columbus, Ohio
Robert W. Schery	Director	Lawn Institute Marysville, Ohio
Harry K. Tayama	Assistant Professor Cooperative Extension Service	The Ohio State University Columbus, Ohio

E. C. Volz	Professor of Floriculture Department of Horticulture	Iowa State University Ames, Iowa
Ralph J. Woodin	Professor of Agricultural Education	The Ohio State University Columbus, Ohio

Agricultural Chemicals Technology

Dale DeRemer	Director, Special Agriculture Program	Northeastern Junior College Sterling, Colorado
James E. Christiansen	Assistant Professor Agriculture Education	University of Florida Gainesville, Florida

Occupational Guidance For Off-Farm Agriculture

Linwood K. Bailey	Staff Assistant, Manpower Policy and Program Appraisal Division	United States Department of Agriculture Washington, D. C.
Earl Webb	Associate Professor Department of Agricultural Education	Texas A&M University College Station, Texas
Emanuel Weinstein	Occupational Analyst Program Services Branch	U. S. Office of Education Washington, D. C.

PRECEDING PAGE BLANK- NOT FILMED

APPENDIX "B"

Participants in Advisory Meeting of January 14-15, 1965 on Developing Programs of Education in Off-Farm Agricultural Occupations

Robert E. Taylor	Coordinator Director	The National Center for Advanced Study and Research in Agricultural Education The Ohio State University Columbus, Ohio
Herbert M. Hamlin	Co-Chairman, Visiting Professor of Education	North Carolina State University Raleigh, North Carolina
Glenn Z. Stevens	Co-Chairman, Professor of Agricultural Education	Pennsylvania State University University Park, Pennsylvania
Harold Binkley	Teacher Educator, Agricultural Education	University of Kentucky Lexington, Kentucky
J. Kenneth Baker	Graduate Assistant Agricultural Education	The Ohio State University Columbus, Ohio
James E. Christiansen	Graduate Assistant Agricultural Education	The Ohio State University Columbus, Ohio
Raymond Clark	Teacher Educator Agricultural Education	Michigan State University East Lansing, Michigan
James Clouse	Teacher Educator Agricultural Education	Purdue University Lafayette, Indiana
John Coster	Teacher Educator Agricultural Education	University of Nebraska Lincoln, Nebraska
Rex Cunningham	Vocational Agriculture Teacher	Arcadia High School Arcadia, Ohio
Richard E. Geyer	Executive Secretary, Commission on Education in Agriculture and Natural Resources	National Academy of Sciences Washington, D. C.

Glenn Griffith	Vocational Agriculture Teacher	Westerville High School Westerville, Ohio
Ramsey Groves	Graduate Assistant Agricultural Education	The Ohio State University Columbus, Ohio
Norman Hoover	Teacher Educator Agricultural Education	Pennsylvania State University University Park, Pennsylvania
Charles Langdon	Assistant Supervisor Vocational Agriculture	State Department of Public Instruction Lansing, Michigan
Ivan McGee	Graduate Assistant Agricultural Education	Pennsylvania State University University Park, Pennsylvania
Lloyd Phipps	Teacher Educator Agricultural Education	University of Illinois Urbana, Illinois
Harry Plank	Vocational Agriculture Instructor	Green Local High School Smithville, Ohio
Harlan Ridenour	Director of the Ohio Vocational Agriculture Curriculum Materials Service	The Ohio State University Columbus, Ohio
James Wall	Executive Secretary	NVATA Lincoln, Nebraska
Ralph Woodin	Teacher Educator Agricultural Education	The Ohio State University Columbus, Ohio

APPENDIX "C"

Participants in Advisory Meeting
of
March 15, 1965
on
Developing Programs of Education in Off-Farm Agricultural Occupations

Robert E. Taylor	Coordinator Director	The National Center for Advanced Study and Research in Agricultural Education The Ohio State University Columbus, Ohio
Herbert M. Hamlin	Co-Chairman, Visiting Professor of Education	North Carolina State University Raleigh, North Carolina
Glenn Z. Stevens	Co-Chairman, Professor of Agricultural Education	Pennsylvania State University University Park, Pennsylvani
Ralph E. Bender	Professor and Chairman Department of Agricultural Education	The Ohio State University Columbus, Ohio
Leon W. Bonner	Teacher Educator Agricultural Education	Alabama A&M College Normal, Alabama
William C. Boykin	Teacher Educator Agricultural Education	Alcorn A&M College Lorman, Mississippi
Theodore Caesar	Personnel Development Director	The Farm Bureau Cooperative Columbus, Ohio
Milton E. Collins	Assistant Supervisor, Guidance	Ohio State Department of Education Columbus, Ohio
Ramsey Groves	Graduate Assistant Agricultural Education	The Ohio State University Columbus, Ohio
H. Neville Hunsicker	Chief, Agriculture Occupations, Division of Vocational and Technical Education	U. S. Office of Education Washington, D. C.

Carlton E. Johnson	Associate Professor of Agricultural Engineering	The Ohio State University Columbus, Ohio
Homer V. Judge	Teacher Educator Agricultural Education	University of Massachusetts Amherst, Massachusetts
Alan A. Kahler	Teacher Educator Agricultural Education	Iowa State University Ames, Iowa
William Logan	Teacher Educator Distributive Education	The Ohio State University Columbus, Ohio
George L. Luster	Associate Professor Agricultural Education	University of Kentucky Lexington, Kentucky
Harlan E. Ridenour	Director of the Ohio Vocational Agriculture Curriculum Materials Service	The Ohio State University Columbus, Ohio
James D. Utzinger	Vocational Agriculture Teacher	Pleasant View High School Grove City, Ohio
Warren Weiler	State Supervisor, Vocational Agriculture	State Department of Education Columbus, Ohio
Charles N. Whitney	Executive Director	Farm and Power Equipment Retailers of Ohio Columbus, Ohio
Ralph Woodin	Teacher Educator Agricultural Education	The Ohio State University Columbus, Ohio

APPENDIX "D"

Participants in Advisory Meeting of April 5 and 6, 1965 on Developing Programs of Education in Off-Farm Agricultural Occupations

Robert C. Anderson	Research Associate Department of Sociology	Michigan State University East Lansing, Michigan
John A. Beaumont	Occupations Branch, Division of Vocational and Technical Education	U. S. Office of Education Washington, D. C.
George Bell	Assistant Supervisor Business Education	State Department of Education Columbus, Ohio
R. C. Belt	Manager (Agricultural Mechanics Dealer)	R. C. Belt, Inc. Washington Court House, Ohio
Ralph E. Bender	Professor and Chairman Department of Agricultural Education	The Ohio State University Columbus, Ohio
John Bottum	Assistant Professor Department of Agricultural Economics	The Ohio State University Columbus, Ohio
Ray Brush	Secretary	American Association of Nurserymen, Inc. Washington, D. C.
C. E. Bundy	Professor, Department of Agricultural Education	Iowa State University Ames, Iowa
James Byrne	Chief, Farm Placement	Bureau of Unemployment Compensation Columbus, Ohio
Dolph Camp	Chief, Occupational and Career Guidance Section	U. S. Office of Education Washington, D. C.
M. J. Clark	Itinerant Teacher Trainer Agricultural Education	Southern University Baton Rouge, Louisiana

Milton Collins	District Supervisor for Southwestern Ohio Guidance Services Section	State Department of Education Columbus, Ohio
Edmund Cox	Agricultural Economist	Bureau of Unemployment Compensation Columbus, Ohio
William Davidson	Executive Assistant	Farm and Power Equipment Retailers of Ohio Columbus, Ohio
Marie Dirks	Professor, Home Economics	The Ohio State University Columbus, Ohio
H. B. Drake	Coordinator, Agri-Business Technology Program	Springfield and Clark Co. Springfield, Ohio
Homer Edwards	State Supervisor Vocational Agriculture	State Department of Education Charleston, West Virginia
Franklin Eldridge	Director of Resident Instruction, College of Agriculture and Home Economics	University of Nebraska Lincoln, Nebraska
T. L. Faulkner	State Supervisor Agricultural Education	State Department of Education Montgomery, Alabama
Norman H. Foote	Chairman, Division of Agriculture and Ornamental Horticulture	State University and Technical College Farmingdale, New York
George G. Greenleaf	Executive Vice President	Ohio Grain and Feed Dealers' Association Columbus, Ohio
Gilbert S. Guiler	Assistant Professor Department of Agricultural Education	The Ohio State University Columbus, Ohio
Jerry J. Halterman	Instructor, Agricultural Department	Modesto Junior College Modesto, California
Paul M. Hodgson	Assistant State Superintendent for Vocational and Technical Education	State Department of Public Instruction Dover, Delaware
Carlton Johnson	Associate Professor of Agricultural Engineering	The Ohio State University Columbus, Ohio

Donald R. Kaldor	Professor of Economics	Iowa State University Ames, Iowa
Allen Keil	President	Columbus Landscaping Association Columbus, Ohio
Max Kuster	Head, Agriculture Department	Joliet Junior College Joliet, Illinois
David McClay	Chairman, Department of Agricultural Education	Pennsylvania State University University Park, Pennsylvania
Robert W. McCormick	Assistant Director, Cooperative Extension Service	The Ohio State University Columbus, Ohio
Murry McJunkin	Manager, Industry Relations	U. S. Steel Corporation Pittsburgh, Pennsylvania
E. M. Norris	Teacher Educator Agricultural Education	Prairie View A&M College Prairie View, Texas
L. J. Phipps	Chairman, Department of Agricultural Education	University of Illinois Urbana, Illinois
Paul F. Pulse	Director of Short Courses in Agriculture	The Ohio State University Columbus, Ohio
Harlan E. Ridenour	Director of the Ohio Vocational Agriculture Curriculum Materials Service	The Ohio State University Columbus, Ohio
Byrl R. Shoemaker	Director of Vocational Education	State Department of Education Columbus, Ohio
John T. Starling	Assistant Supervisor Vocational Agriculture	State Department of Education Columbus, Ohio
R.C.S. Sutliff	Chief, Bureau of Agricultural Education	State Department of Education Albany, New York
Warren G. Weiler	State Supervisor Vocational Agriculture	State Department of Education Columbus, Ohio
J. W. Warren	Assistant Supervisor Agricultural Education	State Department of Public Instruction Raleigh, North Carolina
Ralph J. Woodin	Professor, Department of Agricultural Education	The Ohio State University Columbus, Ohio

PRECEDING PAGE BLANK-NOT FILMED

Appendix "E"

Participants in National Seminar on Off-Farm Agricultural Occupations May 4 - 7, 1965

T. L. Faulkner	Supervisor Vocational Agriculture	Alabama
R. W. Montgomery	Teacher Educator Agricultural Education	Alabama
R. W. Cline	Teacher Educator Agricultural Education	Arizona
Carlos H. Moore	Supervisor Vocational Agriculture	Arizona
J. C. Atherton	Teacher Educator Agricultural Education	Arkansas
A. B. Rougeau	Teacher Educator Agricultural Education	Arkansas
Kenneth B. Cutler	Supervisor Vocational Agriculture	California
S. S. Sutherland	Teacher Educator Agricultural Education	California
Irving Cross	Teacher Educator Agricultural Education	Colorado
Paul J. Foster	Supervisor Vocational Agriculture	Colorado
Howard Martin	Teacher Educator Agricultural Education	Connecticut
Phil Masley	Teacher Vocational Agriculture	Connecticut
Ralph Barwick	Teacher Educator Agricultural Education	Delaware
William Dannenhauer	Teacher Vocational Agriculture	Delaware
W. T. Loften	Teacher Educator Agricultural Education	Florida

G. C. Norman	Supervisor Vocational Agriculture	Florida
J. G. Bryant	Supervisor Vocational Agriculture	Georgia
Tamotsu Horii	Supervisor Vocational Agriculture	Hawaii
Ralph Edwards	Supervisor Vocational Agriculture	Idaho
Ralph Guthrie	Supervisor Vocational Agriculture	Illinois
Lloyd Phipps	Teacher Educator Agricultural Education	Illinois
James Clouse	Teacher Educator Agricultural Education	Indiana
Harrison Gardner	Teacher Educator Agricultural Education	Indiana
Avery Gray	Supervisor Vocational Agriculture	Indiana
C. E. Bundy	Teacher Educator Agricultural Education	Iowa
C. W. Dalbey	Supervisor Vocational Agriculture	Iowa
Howard R. Bradley	Teacher Educator Agricultural Education	Kansas
C. C. Eustace	Supervisor Vocational Education	Kansas
Harold Binkley	Teacher Educator Agricultural Education	Kentucky
M. M. Botto	Supervisor Vocational Agriculture	Kentucky
Floyd Cox	Teacher Educator Agricultural Education	Kentucky
Roy Dillon	Teacher Educator Agricultural Education	Kentucky

George Luster	Teacher Educator Agricultural Education	Kentucky
W. C. Montgomery	Supervisor Vocational Agriculture	Kentucky
Charles Curtis	Teacher Educator Agricultural Education	Louisiana
James Hutchinson	Teacher Educator Agricultural Education	Louisiana
Whitney A. Langlois	Program Specialist Agricultural Education	Louisiana
C. P. McVea	Supervisor Vocational Agriculture	Louisiana
C. L. Mondart	Teacher Educator Agricultural Education	Louisiana
Wallace H. Elliott	Supervisor Vocational Agriculture	Maine
Ray Cardozier	Teacher Educator Agricultural Education	Maryland
Claud C. Marion	Teacher Educator Agricultural Education	Maryland
Homer Judge	Teacher Educator Agricultural Education	Massachusetts
Jesse Taft	Supervisor Vocational Agriculture	Massachusetts
Raymond M. Clark	Teacher Educator Agricultural Education	Michigan
Edwin St. John	Supervisor Vocational Agriculture	Michigan
Ernest Freier	Supervisor Vocational Agriculture	Minnesota
Milo Peterson	Teacher Educator Agricultural Education	Minnesota

E. E. Gross	Supervisor Vocational Agriculture	Mississippi
Obed L. Snowden	Teacher Educator Agricultural Education	Mississippi
W. T. Taylor, Jr.	Supervisor Vocational Agriculture	Mississippi
Earl T. Carpenter	Teacher Educator Agricultural Education	Missouri
Max L. Amberson	Supervisor Vocational Agriculture	Montana
Leo L. Knuti	Teacher Educator Agricultural Education	Montana
James T. Horner	Teacher Educator Agricultural Education	Nebraska
Glen H. Strain	Supervisor Vocational Agriculture	Nebraska
T. A. Butler	Teacher Educator Agricultural Education	Nevada
Howard Christensen	Teacher Educator Agricultural Education	Nevada
J. R. Peddicord	Supervisor Vocational Agriculture	Nevada
Neal Andrew	Supervisor Vocational Agriculture	New Hampshire
William Annis	Teacher Educator Agricultural Education	New Hampshire
Charles C. Drawbaugh	Teacher Educator Agricultural Education	New Jersey
George W. Lange	Supervisor Vocational Agriculture	New Jersey
L. C. Dalton	Supervisor Vocational Agriculture	New Mexico
J. D. McComas	Teacher Educator Agricultural Education	New Mexico
W. E. Drake	Teacher Educator Agricultural Education	New York

R. C. S. Sutliff	Supervisor Vocational Agriculture	New York
A. G. Bullard	Supervisor Vocational Agriculture	North Carolina
T. R. Miller	Teacher Educator Agricultural Education	North Carolina
Ernest L. DeAlton	Supervisor Vocational Agriculture	North Dakota
Winston H. Dolve	Teacher Educator Agricultural Education	North Dakota
Ralph E. Bender	Teacher Educator Agricultural Education	Ohio
Herbert D. Brum	Supervisor Vocational Agriculture	Ohio
Clarence Cunningham	Teacher Educator Agricultural Education	Ohio
James E. Dougan	Supervisor Vocational Agriculture	Ohio
Gilbert S. Guiler	Teacher Educator Agricultural Education	Ohio
Carlton Johnson	Teacher Educator Agricultural Education	Ohio
Floyd G. McCormick	Teacher Educator Agricultural Education	Ohio
Paul F. Pulse	Supervisor Agricultural Education	Ohio
D. R. Purkey	Supervisor Vocational Agriculture	Ohio
Harlan Ridenour	Supervisor Vocational Agriculture	Ohio
F. J. Ruble	Supervisor Vocational Agriculture	Ohio
Byrl Shoemaker	Supervisor Vocational Agriculture	Ohio
John T. Starling	Supervisor Vocational Agriculture	Ohio

Warren G. Weiler	Supervisor Vocational Agriculture	Ohio
Richard H. Wilson	Teacher Educator Agricultural Education	Ohio
Willard H. Wolf	Teacher Educator Agricultural Education	Ohio
Ralph J. Woodin	Teacher Educator Agricultural Education	Ohio
Byrle Killian	Supervisor Vocational Agriculture	Oklahoma
Robert R. Price	Teacher Educator Agricultural Education	Oklahoma
Leonard E. Kunzman	Supervisor Vocational Agriculture	Oregon
Henry A. TenPas	Teacher Educator Agricultural Education	Oregon
David R. McClay	Teacher Educator Agricultural Education	Pennsylvania
T. Dean Witmer	Supervisor Vocational Agriculture	Pennsylvania
Rafael Muller	Supervisor Vocational Agriculture	Puerto Rico
Raymond C. Northrup	Supervisor Vocational Agriculture	Rhode Island
David F. Shontz	Teacher Educator Agricultural Education	Rhode Island
Arthur K. Jensen	Teacher Educator Agricultural Education	South Carolina
Cecil H. Johnson, Jr.	Supervisor Vocational Agriculture	South Carolina
H. W. Gadda	Teacher Educator Agricultural Education	South Dakota
Louis A. Carpenter	Supervisor Vocational Agriculture	Tennessee
George W. Weigers	Teacher Educator Agricultural Education	Tennessee
Lewis Eggenberger	Teacher Educator Agricultural Education	Texas

2

John Holcomb	Teacher Educator Agricultural Education	Texas
George Hurt	Supervisor Vocational Agriculture	Texas
Vannoy Stewart	Teacher Educator Agricultural Education	Texas
Elvin Downs	Supervisor Vocational Agriculture	Utah
Stanley S. Richardson	Teacher Educator Agricultural Education	Utah
Cola D. Watson	Supervisor Vocational Agriculture	Vermont
M. A. Fields	Teacher Educator Agricultural Education	Virginia
L. M. Jewell	Supervisor Vocational Agriculture	Virginia
C. O. Loreen	Teacher Educator Agricultural Education	Washington
Joel Magisos	Supervisor Vocational Agriculture	Washington
O. J. Burger	Director Resident Instruction	West Virginia
R. C. Butler	Teacher Educator Agricultural Education	West Virginia
Guy Cain	Supervisor Vocational Agriculture	West Virginia
Lowell Cook	Teacher Educator Agricultural Education	West Virginia
Homer Edwards	Supervisor Vocational Agriculture	West Virginia
Glenn Fogle	Supervisor Vocational Agriculture	West Virginia
Byrl Law	Teacher Educator Agricultural Education	West Virginia
Claude McGhee	Teacher Educator Agricultural Education	West Virginia

Dale C. Aebischer	Supervisor Vocational Agriculture	Wisconsin
Walter Bjoraker	Teacher Educator Agricultural Education	Wisconsin
Marvin Thompson	Teacher Educator Agricultural Education	Wisconsin
Percy Kirk	Supervisor Vocational Agriculture	Wyoming
Jack Ruch	Teacher Educator Agricultural Education	Wyoming

A. J. Aiello	Farm Equipment Systems	Norick Brothers, Inc. Chicago, Illinois
Linwood K. Bailey	Staff Assistant	U. S. Dept. of Agriculture Washington, D. C.
Harry Beard	Acting Director of Vocational Education	North Carolina
Richard Bohning	Associate Dean College of Agriculture and Home Economics	The Ohio State University Columbus, Ohio
Kenneth F. Carnan	Supervisor Training Methods	Chicago, Illinois
R. L. Carr	Service Manager	John Deere Company Columbus, Ohio
L. A. Coomer	Supervisor of Service	International Harvester Co. Chicago, Illinois
Otis S. Cooper	Administrative Supervisor State Employment Service	Ohio
Harold Crawford	Teacher Vocational Agriculture	NVATA
Harold F. Duis	Assistant Director State Plans & Agreement State Vocational Service Bureau of Vocational & Technical Education	U. S. Office of Education Washington, D. C.
Jim Durkee	Teacher Vocational Agriculture	NVATA
Roger J. Fritz	Secretary & Director	John Deere Foundation Moline, Illinois
George G. Greenleaf	Executive Vice-President	Ohio Grain & Feed Dealers Columbus, Ohio
Russell L. Guin	Interstate Printers and Publishers	Illinois
Larry Heaton	Branch Manager John Deere Company	Columbus, Ohio
F. G. Hileman	Director of Service	John Deere Foundation Moline, Illinois
H. N. Hunsicker	Head, Agricultural Education Occupations	U. S. Office of Education Washington, D. C.

E. M. Hunt	Instructor, Program in Agricultural Business	Forsyth Technical Institute Winston-Salem, N. Carolina
Floyd Johnson	Vice-President	AVA Agricultural Division York, South Carolina
Donald V. Koenig	Division of Public and Association Relations	National Farm and Power Equipment Dealers Association
Whitney A. Langlois	Program Specialist	Department of Education Greenwell Springs, Louisiana
J. H. Lintner	Consultant	National Center Columbus, Ohio
Vernon Maack	Director Area Vocational School	Alexandria, Minnesota
R. O. Mattson	Branch Manager International Harvester Company	Columbus, Ohio
William Morris	Manager Dealer Development	International Harvester Co. Lombard, Illinois
Duane M. Nielsen	Director Educational Resources Development Branch Bureau of Research	U. S. Office of Education Washington, D. C.
Alvin Oliver		Alexandria, Virginia
Ed Rumps	Assistant Director State Plans and Grants	U. S. Office of Education Washington, D. C.
John Shuey	Manager Dealer Development	International Harvestor Co. Columbus, Ohio
Ernest Stedge	Instructor, Rockland County, Center of Technology and Education	West Nyack, New York
Ernest Tarone	Chairman, Agriculture Department, Modesto Junior College	Modesto, California
Grant Venn	Superintendent of Schools	Parkersburg, West Virginia
James Wall	Executive Secretary	NVATA
Emanuel Weinstein	Occupational Analyst	U. S. Office of Education Washington, D. C.

Project Staff

Harold Anderson
William Becker
James Christiansen
Ramsey Groves
H. M. Hamlin
Alan Kahler
Julius Linther
Glenn Z. Stevens
Robert E. Taylor
James Utzinger

PRECEDING PAGE BLANK-NOT FILMED

APPENDIX "F"

Participants of Area Meetings on Off-Farm Agricultural Occupations

Participants
New York Area Meeting
May 17-19, 1965

Robert E. Bennett	Vocational Agriculture Instructor	Womogo Regional High School Litchfield, Connecticut
Kenneth C. Farmer	Vocational Agriculture Instructor	Southington High School Southington, Connecticut
Roger W. Lawrence	Vocational Agriculture Instructor	Woodrow Wilson High School Middletown, Connecticut
Hugh J. Ripper	Vocational Agriculture Instructor	Woodbury High School Woodbury, Connecticut
Philip G. Stiles	Food Distribution	University of Connecticut Storrs, Connecticut
L. L. Turner	State Supervisor Agricultural Education	State Department of Education Hartford, Connecticut
Clarke B. Wood	Vocational Agriculture	Housatonic Valley Regional High School Falls Village, Connecticut
Ralph P. Barwick	Head Teacher Educator Agricultural Education	University of Delaware Newark, Delaware
Tom McGarr	Instructor	Norfolk County Agricultural School Walpole, Massachusetts
H. P. Addison	Teacher Educator Agricultural Education	University of Maryland College Park, Maryland
Martin L. Mitchell	Acting State Director Vocational Agricultural Education	State Department of Education Concord, New Hampshire
C. C. Drawbaugh	Professor, Agricultural Education	Rutgers University New Brunswick, New Jersey

A. J. Juestrich	Vocational Agriculture Instructor	Hammonton High School Hammonton, New Jersey
Robert Kopf	Horticulture Instructor	Freehold Regional High School Freehold, New Jersey
George Lange	State Supervisor Agricultural Education	State Department of Education Trenton, New Jersey
Grant M. Miller	Research Assistant Agricultural Education	Rutgers University New Brunswick, New Jersey
Joe P. Bail	Head Teacher Educator Agricultural Education	Cornell University Ithaca, New York
J. M. Carter	Consultant Agricultural Education	Lyons Falls High School Lyons Falls, New York
George Chrein	Vocational Agriculture Instructor	John Bowne High School Queens, New York
Virgil Christensen	Assistant to the Director of Research	Cornell University Ithaca, New York
W. E. Drake	Teacher Educator Agricultural Education	Cornell University Ithaca, New York
Paul Emerling	Vocational Agriculture Instructor	Griffith Institute Springville, New York
Mr. Everette	New York Botanical Gardens	New York City, New York
Mrs. Hall	New York Botanical Gardens	New York City, New York
Richard Harrison	Vocational Agriculture Instructor	Southern Cayuga Central School King Ferry, New York
David Hartzog	United Nations	New York City, New York
Alan Lamb	Executive Secretary	New York Farm Equipment Dealers' Association Hamilton, New York
Everett C. Lattimer	Associate in Agricultural Education	State Department of Education Albany, New York
Harold L. Noakes	Associate in Agricultural Education	State Department of Education Albany, New York

W. E. Orsont	Bureau of Agricultural Education	State Department of Education Albany, New York
Steve Smith	Agricultural Consultant	State Department of Education Albany, New York
Ernest Stedge	Horticulture Instructor	Rockland County Center of Technical Education West Nyack, New York
R.C.S. Sutliff	State Supervisor Agricultural Education	State Department of Education Albany, New York
Carl Widger	Vice President of Region VI	NVATA Minnsville, New York
Frank Wolff	Associate in Agricultural Education	State Department of Education Albany, New York
W. J. Brown, Jr.	Vocational Education Instructor	Pennsylvania State University University Park, Pennsylvania
Samuel M. Curtis	Graduate Assistant Agricultural Education	Pennsylvania State University University Park, Pennsylvania
Donald R. Dutrow	Vocational Agriculture Instructor	Western Area Joint High School Mifflinburg, Pennsylvania
William L. Hull	Graduate Assistant Agricultural Education	Pennsylvania State University University Park, Pennsylvania
Gene M. Love	Associate Professor Agricultural Education	Pennsylvania State University University Park, Pennsylvania
David R. McClay	Professor and Head Department of Agricultural Education	Pennsylvania State University University Park, Pennsylvania
Ivan C. McGee	Graduate Assistant Agricultural Education	Pennsylvania State University University Park, Pennsylvania
William A. Robinson	Vocational Agriculture Instructor	Chambersburg Area Joint High School Chamberzburg, Pennsylvania

Robert E. Steffy	Graduate Assistant Agricultural Education	Pennsylvania State University University Park, Pennsylvania
John Ball	Vocational Agriculture Instructor	Coventry High School Coventry, Rhode Island
John Emin, Jr.	Vocational Agriculture Instructor	Ponaganset High School North Scituate, Rhode Island
Ray C. Northrup	State Supervisor Agricultural Education	State Department of Education Providence, Rhode Island
C. S. McLearen	Associate Professor Agricultural Education	Virginia Polytechnic Institute Blacksburg, Virginia
R. H. Munsey	Vocational Education Instructor	Battle High School Abingdon, Virginia
T. J. Wakeman	Teacher Trainer in Farm Shops	Virginia Polytechnic Institute Blacksburg, Virginia
E. J. Johnson	Program Specialist Agricultural Education	U. S. Office of Education Washington, D. C.
Center Staff		
W. J. Becker	Consultant	The National Center for Advanced Study and Research in Agricultural Education The Ohio State University Columbus, Ohio
A. A. Kahler	Consultant	
J. D. Utzinger	Consultant	
G. Z. Stevens	Consultant	

Participants
Chicago Area Meeting
May 24-26, 1965

Fred Barne	Student	Joliet Junior College Joliet, Illinois
Don Coil	Executive Secretary	Illinois FFA Springfield, Illinois
Roger L. Courson	Vocational Agriculture Service	University of Illinois Urbana, Illinois
H. K. Engelking	Supervisor Agricultural Education	State Board of Vocational Education Springfield, Illinois
Orval C. Floyd	Supervisor Agricultural Education	State Board of Vocational Education Springfield, Illinois
Gerald R. Fuller	Assistant Professor	University of Illinois Urbana, Illinois
Ralph Guthrie	Chief, Agricultural Education	State Office of Education Springfield, Illinois
H. W. Homann	Supervisor Agricultural Education	State Board of Vocational Education Springfield, Illinois
Kenneth E. James	Teacher Educator Agricultural Education	Illinois State University Normal, Illinois
Max H. Kuster	Head, Agricultural Department	Joliet Junior College Joliet, Illinois
John W. Matthews	Vocational Agriculture Service	University of Illinois Urbana, Illinois
Robert L. McFall	Farm and Industrial Equipment Association	Chicago, Illinois
Don Moeller	Public Relations Department	Swift and Company Chicago, Illinois
William Morris	Dealer Development Manager	International Harvester Co. Chicago, Illinois
Arthur C. Muns	Administrative Assistant to the President	Northern Illinois University De Kalb, Illinois

Lloyd J. Phipps	Professor, Agricultural Education	University of Illinois Urbana, Illinois
Al Redding	Assistant Director	State Department of Education Springfield, Illinois
George A. Richter	Supervisor Agricultural Education	State Board of Vocational Education Springfield, Illinois
W. T. Schnathorst	Supervisor Educational Service	International Harvester Co. Chicago, Illinois
Elliott W. Silver	Farm Equipment Training Division Supervisor	International Harvester Co. Chicago, Illinois
H. M. Struhinger	Supervisor Agricultural Education	State Board of Vocational Education Springfield, Illinois
Allan L. Utech	Supervisor Agricultural Education	State Board of Vocational Education Springfield, Illinois
J. R. Warmbrod	Assistant Professor of Agricultural Education	University of Illinois Urbana, Illinois
Charles L. Watson	Superintendent of Schools	Cessna Park Community Unit Cessna Park, Illinois
W. H. Witt	Teacher Educator Vocational Agriculture Service	University of Illinois Urbana, Illinois
Eugene S. Wood	Associate Professor School of Agriculture	Southern Illinois University Carbondale, Illinois
Ralph R. Bentley	Research Teacher Trainer Agricultural Education	Purdue University Lafayette, Indiana
James T. Black	Vocational Agriculture Instructor	Crothersville High School Crothersville, Indiana
Jon D. Cain	Graduate Assistant	Purdue University Lafayette, Indiana
James P. Clouse	Teacher Educator Agricultural Education	Purdue University Lafayette, Indiana
Harrison Gardner	Assistant Professor Agricultural Education	Purdue University Lafayette, Indiana

Avery Gray	State Supervisor	State Department of Public Instruction Indianapolis, Indiana
Donald Hayes	Superintendent of Schools	Decatur County Schools Greensburg, Indiana
Robert Hewlett	Vocational Agriculture Instructor	Woodburn High School Woodburn, Indiana
Jim McGuire	Teacher Educator Agricultural Education	Purdue University Lafayette, Indiana
Don Pennington	Vocational Agriculture Instructor	Crothersville High School Crothersville, Indiana
Bill Preston	Graduate Assistant	Purdue University Lafayette, Indiana
Bill Schmidlapp	Vocational Agriculture Teacher	Union-North School Lakeville, Indiana
Philip Teske	Teacher Trainer Agricultural Education	Purdue University Lafayette, Indiana
Gerald F. Barton	Assistant Supervisor in Agricultural Education	State Department of Public Instruction Des Moines, Iowa
Duane L. Blake	Assistant Professor Agricultural Education	Iowa State University Ames, Iowa
L. Glenn Brostrom	Superintendent of Schools	Waverly-Shell Rock Schools Waverly, Iowa
Allen A. Carrell	Vocational Agriculture Instructor	Shenandoah Community School Shenandoah, Iowa
Everett L. Clover	Community College	Muscatine, Iowa
C. W. Dalbey	State Supervisor Agricultural Education	State Department of Public Instruction Des Moines, Iowa
Elwood J. Mabon	Consultant in Agricultural Education	State Department of Public Instruction Des Moines, Iowa
Gary McVey	Vocational Agriculture Instructor	Chariton High School Chariton, Iowa
Larry L. Statler	Vocational Agriculture Instructor	Waverly-Shell Rock Schools Waverly, Iowa

Harold M. Byram	Head Teacher Educator Vocational Agriculture Education	Michigan State University East Lansing, Michigan
Edwin St. John	State Supervisor Vocational Agriculture	Michigan Department Public Instruction Lansing, Michigan
Guy E. Timmons	Teacher Trainer Vocational Agriculture Education	Michigan State University East Lansing, Michigan
Ken Austin	Executive Secretary	Retail Farm Equipment Association Owatonna, Minnesota
J. F. Malinski	Assistant Supervisor Agricultural Education	State Department of Education St. Paul, Minnesota
Gerald F. Page	Vice President	NVATA Nixa, Missouri
G. Ed Henderson	Research Associate	University of Nebraska Lincoln, Nebraska
M. G. McCreight	Teacher Trainer Agricultural Education	University of Nebraska Lincoln, Nebraska
Clarence W. Anderson	Vocational Agriculture Instructor	N.D. Vocational Agriculture Association Enderlin High School Enderlin, North Dakota
Kenneth Melin	Vocational Agriculture Instructor	Walsh County Agricultural School Park River, North Dakota
Richard N. Adams	Vocational Agriculture Instructor	Tecumseh High School New Carlisle, Ohio
H. B. Drake	Coordinator, Agricultural Business Technology	The Springfield and Clark County Technical Education Program
Vincent J. Feck	Coordinator, Vocational Horticulture	Cleveland Board of Education Cleveland, Ohio
Charles Hastings	Vocational Agriculture Instructor	Clyde High School Clyde, Ohio

James L. Pease	Vocational Agriculture Instructor	Maumee High School Maumee, Ohio
Harlan E. Ridenour	Director of the Ohio Vocational Agriculture Curriculum Materials Service	The Ohio State University Columbus, Ohio
John T. Starling	Assistant Supervisor Vocational Agriculture	State Department of Education Columbus, Ohio
A. J. Aiello	Farm Equipment Systems Division Manager	Norick Brothers, Inc. Oklahoma City, Oklahoma
Elmer J. Johnson	Program Specialist U. S. Office of Education	Department of Health, Education, and Welfare Washington, D. C.
Dale C. Aebischer	Chief, Agriculture Education	Board of Vocational and Adult Education Madison, Wisconsin
Doyle Beyl	Vocational Supervisor	State Board of Vocational and Adult Education Madison, Wisconsin
Arnold Cordes	State Supervisor	Board of Vocational and Adult Education Madison, Wisconsin
Ray Fletcher	Supervisor, Product Training	Allis-Chalmers Mfg. Co. Milwaukee, Wisconsin
James Hensel	Teacher Trainer Agricultural Education	University of Wisconsin Madison, Wisconsin
L. R. Hilterbrand	Teacher Educator Agricultural Education	Wisconsin State University River Falls, Wisconsin
M. L. Steinke	Executive Secretary	Wisconsin Impl. Dealers Association Madison, Wisconsin
Keith W. Stoehr	Instructional Supervisor	Kenosha Technical Institute Kenosha, Wisconsin
Raymond Wall	Instructor Agricultural Education	Wisconsin State University River Falls, Wisconsin

James Zepplin	Supervisor Agricultural Mechanics	Wausau Technical Institute Wausau, Wisconsin
Center Staff		
H. M. Hamlin	Consultant	The National Center for Advanced Study and Research in Agricultural Education The Ohio State University Columbus, Ohio
A. A. Kahler	Consultant	
W. J. Becker	Consultant	
J. D. Utzinger	Consultant	

Participants
Pullman Area Meeting
June 2-4, 1965

Tomotsu Horii	Program Specialist Agricultural Education	State Board of Education Honolulu, Hawaii
W. Borgen	Vocational Agriculture Instructor	Troy High School Troy, Idaho
Douglas Christensen	Vocational Agriculture Instructor	Kendrick High School Kendrick, Idaho
Lester Diehl	Superintendent of Schools	Genesee High School Genesee, Idaho
Kenneth Ertel	Teacher Educator Agricultural Education	Idaho University Moscow, Idaho
Kenneth Hansen	State Supervisor Agricultural Education	State Board of Vocational Education Boise, Idaho
Bob Haynes	Teacher Educator Agricultural Education	Idaho University Moscow, Idaho
Robert Hiemgartner	Vocational Agriculture Instructor	Genesee High School Genesee, Idaho
Dwight Kindschy	Teacher Educator Agricultural Education	Idaho University Moscow, Idaho
Kirk Rush	Agricultural Teacher	Moscow High School Moscow, Idaho
H. A. Winner	Teacher Educator Agricultural Education	Idaho University Moscow, Idaho
Larry Morrow	Vocational Agriculture Instructor	Bozeman, Montana
Richard Buckovic	Head, Agriculture Department	Mollala Unified High School Mollala, Oregon
Norman Burgess	Vocational Agriculture Instructor	Clackamas High School Milwaukie, Oregon

Norman Koopman	Vocational Director	La Grande High School La Grande, Oregon
Al Pfahl	Local Vocational Director	West Linn High School West Linn, Oregon
Joe Powell	Sales Manager	John Deere Company Portland, Oregon
David Raynalds	Head, Agricultural Education Department	Blue Mountain Community College Pendleton, Oregon
Owen Sabin	Superintendent of Schools	Milwaukie, Oregon
Darrell Ward	State Supervisor Agricultural Education	State Department of Education Salem, Oregon
Walden Wedin	Vocational Agriculture Instructor	McLoughlin Unified School Milton-Freewater, Oregon
Louis Anderson	Vocational Agriculture Instructor	Mead High School Mead, Washington
William Bakamos	Industrial Arts Education	Washington State University Pullman, Washington
Lee Barbee	Supervisor Agricultural Education	State Board for Vocational Education Olympia, Washington
Cecil A. Bradley	Coordinator of Instruction for Vocational Education	Seattle Public Schools Seattle, Washington
George Brain	Dean, College of Education	Washington State University Pullman, Washington
Archie Brislawn	Supervisor Distributive Education	Olympia, Washington
Bert L. Brown	State Director of Agricultural Education	State Board of Vocational Education Olympia, Washington
Orville Carnahan	Director of Vocational Technical Division	Yakima Valley College Yakima, Washington
Robert Corless	Supervisor	Sunnyside, Washington

Jerry Gleason	District Manager	Western Farmers Spokane, Washington
John Griffith	Agriculture Officer	Yakima Valley College Yakima, Washington
Vern Hagen	Vice Principal	Tumwater, Washington
Blaine Hardy	Vocational Agriculture Instructor	Wapato High School Wapato, Washington
Jesse Helm	Agriculture Teacher	Wenatchee Valley Junior College Wenatchee, Washington
Fred Huston	Agriculture Supervisor	Big Bend Community College Moses Lake, Washington
Eugene Irwin	Vocational Agriculture Instructor	Mossyrock High School Mossyrock, Washington
Walter Johnson	President	Spokane Community College Spokane, Washington
M. C. Knox	Supervisor Agricultural Education	State Board for Vocational Education Olympia, Washington
Gil Long	Agriculture Teacher	Deer Park, Washington
C. O. Loreen	Head Teacher Trainer Agricultural Education	Washington State University Pullman, Washington
Joel H. Magisos	Teacher Educator Agricultural Education	Washington State University Pullman, Washington
Dick Moe	MDTA	Olympia, Washington
Richard Nowadnick	Agricultural Education	Skajit Valley College Mount Vernon, Washington
Ralph Olmstead	Vocational Agriculture Instructor	Battle Ground High School Battle Ground, Washington
Kenneth Owen	Vocational Agriculture Instructor	Franklin Pierce High School Tacoma, Washington
Henry Polis	Supervisor Agricultural Education State Board of Vocational Education	Olympia, Washington

Walter Ritter	Director	Washington Nurserymens' Association Spokane, Washington
Robert Wallenstein	Dean of Applied Arts	Spokane Community College Spokane, Washington
Everett Webb	Teacher Educator, Retired, Agricultural Education	Washington State University Pullman, Washington
John Wilson	Agriculture Teacher	Yakima, Washington
Jay Wood	Vocational Agriculture Instructor	Medical Lake High School Medical Lake, Washington
Center Staff		
Glenn Z. Stevens	Consultant	The Center for Vocational and Technical Education The Ohio State University Columbus, Ohio
James Christiansen	Graduate Assistant	
William Becker	Consultant	

Participants
Denver Area Meeting
June 9-11, 1965

William F. Hendrix	Principal	Amphitheater High School Tucson, Arizona
Max Huff	Vocational Agriculture Instructor	Casa Grande Union High School Casa Grande, Arizona
Robert E. Julian	Vocational Agriculture Instructor	Amphitheater High School Tucson, Arizona
John R. Williams	Associate Professor of Agricultural Education	University of Arizona Tucson, Arizona
Phillip R. Zurbruck	Vocational Agriculture Instructor	Tempe, Arizona
Mel Adams	Vocational Agriculture Instructor	Greeley High School Greeley, Colorado
James Bohn	Vocational Agriculture Instructor	Rocky Ford High School Rocky Ford, Colorado
Delbert E. Borrelli	Principal	Cortez High School Cortez, Colorado
R. W. Canada	Head, Agricultural Education	Colorado State University Ft. Collins, Colorado
Irving C. Cross	Assistant Professor Agricultural Education	Colorado State University Ft. Collins, Colorado
Robert Datteri	Vocational Agriculture Instructor	Ft. Morgan High School Ft. Morgan, Colorado
Paul Foster	Supervisor Agricultural Education	State Board for Vocational Education Denver, Colorado
Patrick J. Gallavan	Director, Denver Mountain Parks	Denver, Colorado
Earl E. Julson	Associate Professor of Agricultural Education	Colorado State University Ft. Collins, Colorado
Stanley Lancaster	Teacher-Coordinator	Greeley Central High School Greeley, Colorado
M. G. Linson	Supervisor Agricultural Education	State Board for Vocational Education Denver, Colorado

R. E. Lucas	Principal	Ft. Morgan High School Ft. Morgan, Colorado
Charles Neal	Vocational Agriculture Instructor	Montezuma County High School Cortez, Colorado
Orville E. Pieper	Business Instructor	North Eastern Junior College Sterling, Colorado
F. W. Reich	Secretary	Mountain States Hardware and Implement Association Boulder, Colorado
Alton Scofield	Executive Secretary	Colorado Cooperative Council Englewood, Colorado
Robert E. Wall	Area Manager	U. S. Steel Corporation Greeley, Colorado
Raymond J. Agan	Head, Department of Agricultural Education	Kansas State University Manhattan, Kansas
Donald W. Brock	Vocational Agriculture Instructor	Righland Park High School Topeka, Kansas
Harold Shoaf	Executive Secretary	Kansas FFA Topeka, Kansas
James H. Walker	Assistant Director (Local level)	Topeka, Kansas
Mike Cullen	Area Vocational Agriculture Coordinator	Willmar Community College Willmar, Minnesota
John K. Coster	Professor of Agricultural Education	University of Nebraska Lincoln, Nebraska
B. E. Gingery	Consultant Agricultural Education	State Department of Education Lincoln, Nebraska
F. Farrell Higbee	General Manager	Triple S. Lab, Inc. Scottsbluff, Nebraska
Gerald J. Huntvork	Vocational Agriculture Instructor	University of Nebraska Curtis, Nebraska
Leon M. Janovy	Vocational Agriculture Teacher	Pierce High School Pierce, Nebraska
Stanley Matzki, Jr.	Director	School of Technical Agriculture Curtis, Nebraska

Roland Peterson	Agriculture Instructor	University of Nebraska Lincoln, Nebraska
Jack W. Sauder	Vocational Agriculture Instructor	Chase County High School Imperial, Nebraska
Elmer Schrag	Vocational Agriculture Instructor	North Platte High School North Platte, Nebraska
Severin B. Sorensen	Vocational Agriculture Instructor	Nebraska City High School Nebraska City, Nebraska
L. C. Dalton	State Supervisor Agricultural Education	State Board for Vocational Education University Park, New Mexico
Cleo A. Dupy	Graduate Assistant	Oklahoma State University Stillwater, Oklahmoa
Chris White	Assistant Teacher Trainer, Agricultural Education	Oklahoma State University Stillwater, Oklahoma
D. Kim Black	Vocational Agriculture Instructor	Jordan High School Sandy, Utah
Fred H. Cornaby	Vocational Agriculture Instructor	Central Utah Vocational School Provo, Utah
Dee Horton	Vocational Agriculture Instructor	Box Elder High School Brigham City, Utah
Von H. Jarrett	Teacher Educator Agricultural Education	Utah State University Logan, Utah
William E. McKell	Director, Vocational Education	Granit School District Salt Lake City, Utah
Floyd Petty	Vocational Agriculture Instructor	Weber County High School Ogden, Utah
E. J. Johnson	Program Specialist U. S. Office of Education	Department of Health, Education, and Welfare Washington, D. C.
John C. Bishop	Vocational Agriculture Instructor	Huntley High School Huntley, Wyoming
Jim Durkee	Teacher Educator, Farm Mechanics	University of Wyoming Laramie, Wyoming

Percy Kirk	State Director Agricultural Education	State Department of Education Cheyenne, Wyoming
Center Staff		
Glenn Z. Stevens	Consultant	The Center for Vocational and Technical Education The Ohio State University Columbus, Ohio
William Becker	Consultant	
Alan A. Kahler	Consultant	

Participants
Atlanta Area Meeting
June 21-23, 1965

R. A. Baker	Assistant Professor Agricultural Education	Auburn University Auburn, Alabama
W. E. Cooper	Assistant Teacher Trainer, Agricultural Education	Tuskegee Institute Tuskegee, Alabama
B. P. Dilworth	District Supervisor Agricultural Education	Auburn University Auburn, Alabama
T. L. Faulkner	State Supervisor Agricultural Education	State Department of Education Montgomery, Alabama
H. W. Green	District Supervisor Agricultural Education	Auburn University Auburn, Alabama
J. C. Hollis	District Supervisor Agricultural Education	State Department of Education Montgomery, Alabama
B. F. Rawls	FFA Executive Secretary and Forestry Specialist	Auburn University Auburn, Alabama
L. L. Sellers	District Supervisor Agricultural Education	Auburn University Auburn, Alabama
J. E. Smith	District Supervisor Agricultural Education	State Department of Education Montgomery, Alabama
B. J. York	District Supervisor Agricultural Education	State Department of Education Montgomery, Alabama
K. M. Eaddy	Assistant Teacher Educator	University of Florida Gainesville, Florida
Owen M. Lee, Jr.	Division Chairman Technical Education	Bartow, Florida
Floyd L. Northrop	Area Supervisor Agricultural Education	University of Florida Gainesville, Florida
Clarence J. Rogers	Assistant Professor Agricultural Education	University of Florida Gainesville, Florida
L. A. Sims	Teacher Educator Agricultural Education	University of Florida Gainesville, Florida

J. N. Baker	Assistant Supervisor Agricultural Education	State Department of Education Swainsboro, Georgia
J. L. Branch	Assistant Supervisor Agricultural Education	Abraham Baldwin Agricultural College Tifton, Georgia
T. D. Brown	Assistant Supervisor Agricultural Education	State Department of Education Atlanta, Georgia
J. G. Bryant	State Supervisor Agricultural Education	State Department of Education Atlanta, Georgia
Earl Burkhalter	Vocational Agriculture Instructor	Coffee County High School Douglas, Georgia
Virgil Carter	Vocational Agriculture Instructor	Appling County High School Baxley, Georgia
W. C. Causey	Teacher	Athens, Georgia
E. H. Cheek	Vocational Agriculture Instructor	Perry High School Perry, Georgia
M. T. Daws	Vocational Agriculture Instructor	Rockmart High School Rockmart, Georgia
A. O. Duncan	Associate Professor Agricultural Education	University of Georgia Athens, Georgia
Hailey Fleming	Vocational Agriculture Instructor	Commerce High School Commerce, Georgia
M. C. Gaar	Regional Representative	Department of Health, Education, and Welfare Atlanta, Georgia
Ellis Hite	Vocational Agriculture Instructor	Calhoun High School Calhoun, Georgia
Jimmy Hix	Vocational Agriculture Instructor	Jefferson High School Jefferson, Georgia
Roscoe C. Keaton	Vocational Agriculture Instructor	Vienna High School Vienna, Georgia
G. Y. McManus	Vocational Agriculture Instructor	Heard County High School Franklin, Georgia
J. H. Mitchell	Assistant Supervisor Agricultural Education	University of Georgia Athens, Georgia

J. S. Perry	Teacher	Rentz, Georgia
Harold Power	Farm Replacement Supervisor	Atlanta, Georgia
Joe F. Pruett	Secretary	Georgia Farm Equipment Association Macon, Georgia
Paul B. Salter	President	Georgia Equipment Association Jesup, Georgia
Sammy H. Sanders	Vocational Agriculture Instructor	Oconee County High School Watkinsville, Georgia
Oswell Smith	Vocational Agriculture Instructor	Patterson High School Patterson, Georgia
S. L. Stiles	Vocational Agriculture Instructor	Alfred E. Beach High School Savannah, Georgia
R. H. Tolbert	Head, Department of Agricultural Education	University of Georgia Athens, Georgia
J. T. Trammell	Vocational Agriculture Instructor	North Whitfield High School Dalton, Georgia
Elvin Walker	Vocational Agriculture Instructor	Norman Park High School Norman Park, Georgia
Robert L. Wilcox	Special Teacher	Douglas County High School Douglasville, Georgia
J. O. Williams	Teacher Trainer Agricultural Education	Fort Valley State College Fort Valley, Georgia
McKinley Wilson	Head, Itinerant Teacher Trainer, Agricultural Education	Fort Valley State College Fort Valley, Georgia
John M. Adams	District Supervisor Agricultural Education	State Department of Education London, Kentucky
Jim Bates	Vocational Agriculture Instructor	Warren County High School Bowling Green Kentucky
William R. Bingham	Teacher Educator Agricultural Education	University of Kentucky Lexington, Kentucky
Robert Kelley	State FFA Executive Secretary	State Department of Education Frankfort, Kentucky

George L. Luster	Associate Professor Agricultural Education	University of Kentucky Lexington, Kentucky
C. O. Neel	Supervisor Agricultural Education	State Department of Education Frankfort, Kentucky
J. Lynn See	Vocational Agriculture Instructor	Louisa High School Louisa, Kentucky
Ralph A. Speakes	Vocational Agriculture Instructor	Boyle County High School Danville, Kentucky
Murrell Webb	Vocational Agriculture Instructor	Christian County High School Hopkinsville, Kentucky
C. H. Chapman	Teacher Educator Agricultural Education	Southern University Baton Rouge, Louisiana
M. J. Clark	Teacher Trainer Agricultural Education	Southern University Baton Rouge, Louisiana
Tom S. Colvin	Area Supervisor Agricultural Education	State Department of Education Shreveport, Louisiana
Charles M. Curtis	Associate Professor Agricultural Education	Louisiana State University Baton Rouge, Louisiana
Jasper A. Hayles	Teacher	Lake Charles, Louisiana
J. R. Hodges	Area Supervisor Agricultural Education	Jena High School Jena, Louisiana
C. P. McVea	State Supervisor Agricultural Education	State Department of Education Baton Rouge, Louisiana
John H. Mitchell	Professor Agricultural Education	University of Southwestern Louisiana Lafayette, Louisiana
J. C. Simmons	Area Supervisor Agricultural Education	Baton Rouge, Louisiana
John Vallot	Executive Secretary FFA	State Department of Education Baton Rouge, Louisiana
W. C. Boykin	Head, Agricultural Education	Alcorn A & M College Lorman, Mississippi
Archie G. Gordon	Teacher Trainer Agricultural Education	Alcorn A & M College Lorman, Mississippi

E. E. Gross	State Supervisor Agricultural Education	State Department of Education Jackson, Mississippi
Walter L. Hutchins	Itinerant Teacher Trainer	State Department of Education Jackson, Mississippi
J. Roland Hamilton	Assistant Professor Agricultural Education	Mississippi State University State College, Mississippi
E. W. Holmes	Assistant Supervisor Agricultural Education	State Department of Education Oxford, Mississippi
P. V. Runnels	District Supervisor	Soso High School Soso, Mississippi
O. L. Snowden	Head, Agricultural Education Department	Mississippi State College State College, Mississippi
George M. Walker	Assistant Professor Agricultural Education	Mississippi State University State College, Mississippi
C. D. Bryant	Assistant Professor Agricultural Education	North Carolina State University Raleigh, North Carolina
C. G. Dawson	Consultant	Raleigh, North Carolina
V. B. Hairr	District Supervisor Agricultural Education	State Department of Public Instruction Raleigh, North Carolina
W. W. McClure	Curriculum Specialist for Agriculture	State Department of Public Instruction Raleigh, North Carolina
Carl D. Price	Division Chairman Agricultural Technology	Fayetteville, North Carolina
Cayce Scarborough	Head, Department of Agricultural Education	North Carolina State University Raleigh, North Carolina
Jeter P. Taylor, Jr.	Principal	Jones Central High School Trenton, North Carolina
L. J. Carter	District Supervisor Agricultural Education	State Department of Education Kingstree, South Carolina
C. G. Hutchinson	Vocational Agriculture Instructor	Conway High School Conway, South Carolina
M. P. Nolan	Teacher	Conway, South Carolina

J. P. Hall	District Supervisor Agricultural Education	State Department of Education Jackson, Tennessee
David Hamilton	Head Teacher Trainer Agricultural Education	Agricultural and Industrial State University Nashville, Tennessee
H. S. Moss	Supervisor	Nashville, Tennessee
R. A. Phillips	Vocational Agriculture Instructor	Central High School Savannah, Tennessee
J. Eldridge Price	Vocational Agriculture Instructor	Rogersville High School Rogersville, Tennessee
Nelson J. Senter	Teacher	Nashville, Tennessee
Albert Stone	Vocational Agriculture Instructor	Central High School Columbia, Tennessee
Boyd Trew	Teacher	Delano, Tennessee
Max Walker	Teacher	Huntingdon High School Huntingdon, Tennessee
E. M. Norris	Head, Teacher Trainer Agricultural Education	Prairie View A&M College Prairie View, Texas
J. R. Powell	Teacher Trainer Agricultural Education	Prairie View A&M College Prairie View, Texas
Charles A. Cox	Vocational Agriculture Coordinator	Dryden High School Dryden, Virginia
Lucy C. Crawford	Associate Professor Distributive Education	Virginia Polytechnic Institute Blacksburg, Virginia
D. D. Oliver	Vocational Agriculture Instructor	Abingdon High School Abingdon, Virginia
C. E. Tilson	Vocational Agriculture Instructor	Dublin High School Dublin, Virginia
Center Staff		
H. M. Hamlin	Consultant	The Center for Vocational And Technical Education The Ohio State University Columbus, Ohio
Alan A. Kahler	Consultant	
George L. Luster	Consultant	
J. D. Utzinger	Consultant	

APPENDIX "G"

ADVISORY COMMITTEE MEETING
for
DEVELOPING PROGRAMS OF EDUCATION IN OFF-FARM AGRICULTURAL OCCUPATIONS
at
THE NATIONAL CENTER FOR ADVANCED STUDY AND RESEARCH

IN AGRICULTURAL EDUCATION

April 5-6, 1965

Monday

9:00	Purpose and Expectencies of the Conference	Dr. Robert E. Taylor
	Progress Report: General Background	Dr. Robert E. Taylor
	Summarization of Research Studies	Dr. Glenn Z. Stevens
	Program Development Which is Proposed	Dr. Herbert M. Hamlin
	Proposed Instructional Materials	Dr. George L. Luster
	Introduction to Afternoon Session's Activities	
12:00	Lunch	Stouffer's Inn
1:30-2:45	Small Group Discussions	Auditorium, Room 205, Room 206
2:45	Coffee Break	
3:00-3:45	Reporting Panel of Small Group Discussion Leaders	Homer Edwards, Moderator
3:45-4:30	General Discussion and Reactions	
6:00-9:00	Dinner	Ohio Stater Inn, Room 248
	New Developments in Vocational Education	John Beaumont; United States Office of Education

Tuesday

9:00- 10:20	Panel of Representatives from Business and Industry (Relationships to Vocational Education and Reactions to Task Force Proposals)	Agricultural Auditorium
10:20	Coffee Break	
10:35- 12:00	Panel of Educators from Different Services (Reactions to Task Force Proposals and Relationships to Business and Industry)	Agricultural Auditorium
12:00- 1:30	Lunch	
1:30	General Meeting Followed by Small Group Meetings Consisting of Conference Participants and Staff Members Working on Specific Problems in: a. Program Development b. Research Summarization c. Horticulture d. Agri-Merchandizing e. Agri-Chemicals f. Agri-Mechanics	Agricultural Auditorium and Rooms 205 and 206

APPENDIX "H"

CONFERENCE ON OFF-FARM AGRICULTURAL OCCUPATIONS

Agricultural Administration Auditorium
The Ohio State University

May 4 to 7, 1965

Monday, May 3

8:00 P. M. Early-Bird Registration and Coffee Hour
Ohio Stater Inn, 2060 North High Street

Tuesday, May 4

8:15 A. M. Bus Leaves Ohio Stater Inn for Auditorium

8:30 A. M. Registration

9:00 A. M. Introduction of Participants

9:15 A. M. Welcome to The Ohio State University-----------------------Richard H. Bohning
Associate Dean
College of Agriculture and Home Economics
The Ohio State University

9:30 A. M. What Must and Can Be Done to Develop Programs for Off-farm Agricultural Occupations-----------------------------Harry Beard
Acting Director of Vocational Education
North Carolina

10:10 A. M. Coffee Break

10:25 A. M. Background and Development of Project Robert E. Taylor
Director
National Center for Agricultural Education

11:10 A. M. Summarization of Research Studies--Glenn Z. Stevens
Consultant
(Professor of Agricultural Education,
Pennsylvania State University)

Tuesday, May 4 (Continued)

11:45 A. M.	Question and Answer Period on Summarization of Research Studies
12:00 Noon	Lunch Ohio Stater Inn
1:30 P. M.	Rationale for the Development of Instructional Materials Prepared by Task Force ---------------------- George L. Luster Consultant (Associate Professor of Agricultural Education, University of Kentucky)
2:10 P. M.	Presentation of Suggested Program Developmental Materials ---------- Herbert M. Hamlin Consultant (Visiting Professor in Education, North Carolina State University)
2:55 P. M.	Coffee Break
3:10 P. M.	Discussion and Questions
3:45 P. M.	Symposium -- Reactions from Industry Representatives to Proposed Developments in Programs for Off-farm Agricultural Occupations --- William Morris Dealer Development Manager Farm Equipment Division International Harvester Company Alvin E. Oliver Executive Vice President Grain and Feed Dealers National Association Jesse Yopp Yopp's Seed Company Paducah, Kentucky Allen Keil President Columbus Landscaping Association Moderator -- Ralph E. Bender Chairman, Department of Agricultural Education The Ohio State University

Tuesday, May 4 (Continued)

7:30 P. M.	Proposed Changes in the FFA Organization	National FFA Study Committee T. L. Faulkner, Chariman

Wednesday, May 5

8:15 A. M.	The Agricultural Program of Modesto Junior College with Emphasis on a Program in Agricultural Chemical Technology	Ernest Tarone Chairman, Agriculture Department Modesto Junior College
9:10 A. M.	The Program in Agricultural Mechanics in the Area School at Alexandria, Minnesota	Vernon Maack Director Area Vocational School Alexandria, Minnesota
9:40 A. M.	Ornamental Horticulture and Nursery Work for High School Students in Rockland County, New York	Ernest Stedge Landscaping Instructor Rockland County Center of Technology and Education West Nyack, New York
10:15 A. M.	Coffee Break	
10:30 A. M.	Agricultural Business for Eleventh and Twelfth Grade Students at Reidland, Kentucky	Harold R. Binkley Associate Professor of Agricultural Education University of Kentucky
11:00 A. M.	Agricultural Business in the Forsyth Technical Institute, Winston-Salem, North Carolina	E. M. Hunt Instructor, Program in Agricultural Business Forsyth Technical Institute

Wednesday, May 5 (Continued)

11:30 A. M. Lunch

1:00 P. M. Thumbnail Sketch of Curricular Materials Developed ----------- Task Force Personnel

Agriculture Supply Sales and Service Occupations -------------- William Becker

Agricultural Machinery Service Occupations ----------------- Alan Kahler

Ornamental Horticulture Service Occupations ------------------- James D. Utzinger

Occupational Experience Programs - Harold Anderson

2:00 P. M. Small Group Discussion of Materials Developed in Each Area
(Specific materials for each area will be presented in these groups)

Program Development ----------- Herbert M. Hamlin
(Northwest Quarter of Auditorium)

Research Summarization --------- Glenn Z. Stevens
(Southwest Quarter of Auditorium)

Occupational Experience --------- Harold Anderson
(Room 205)

Horticulture -------------------- James Utzinger
(Room 250)

Agricultural Mechanization ---------- Alan Kahler
(Room 252)

Agriculture Supply Sales and Services ----------------------- William Becker
(Northeast Quarter of Auditorium)

3:15 P. M. Coffee Break and Shift from First Group to Second Group

3:30 P. M. Repeat Session of Small Group Discussions
(Each person would have attended two groups)

7:30 P. M. Informal Discussion of Program Areas
University High School
Rooms 204, 205, 302, 303

Thursday, May 6

Leadership Tasks for State Staffs in
Implementing Programs in Off-Farm
Agricultural Occupations

8:30 A. M. Administrative Responsibilities

Position Paper----------------R. C. S. Sutliff
Chief, Bureau of Agricultural Education
New York

Discussant-------------------Harold T. Binkley
Professor of Agricultural Education
University of Kentucky

9:10 A. M. Changing Existing Programs

Position Paper------------------T. L. Faulkner
State Supervisor, Agricultural Education
Alabama

Discussant--------------------Irving R. Cross
Assistant Professor of Agriculture
Colorado State University

9:40 A. M. Developing and Evaluating Pilot
or Developmental Programs

Position Paper---------------- Lloyd J. Phipps
Chairman of Agricultural Education
University of Illinois

Discussant--------------------- Max L. Amberson
State Supervisor, Agricultural Education
Montana

10:10 A. M. Coffee Break

10:30 A. M. Small Group Discussion Period
Pertaining to the Three Position
Papers Presented

12:00 Noon Lunch
Ohio Stater Inn

Thursday, May 6 (Continued)

1:30 P. M. Providing Qulaified Personnel

Position Paper ---------------- David R. McClay
Head, Department of Agricultural Education
Pennsylvania State University

Discussant --------------------V. Ray Cardozier
Chairman, Department of Agricultural Education
University of Maryland

2:00 P. M. Providing Occupational Experience

Position Paper -------------------- C. E. Bundy
Head, Agricultural Education
Iowa State University

Discussant ------------------- W. Howard Martin
Head, Department of Agricultural Education
University of Connecticut

2:30 P. M. Providing Vocational Education in Agriculture for Those Not Benefiting from the Regular Program

Position Paper -------------- Homer E. Edwards
State Supervisor, Vocational Agriculture
West Virginia

Discussant --------------------- Rafael Muller
Director, Agricultural Education
Puerto Rico

3:00 P. M. Coffee Break

3:15 P. M. Small Group Discussion Period Pertaining to the Three Position Papers Presented

Thursday, May 6 (Continued)

6:00 P. M. Banquet
Franklin Room, Ohio Union

Toastmaster -------------------- Warren G. Weiler
State Supervisor, Agricultural Education
Ohio

Emerging Concepts in Vocational
and Technical Education As Seen
by the U. S. Office of Education ------- Ed Rumpf
Assistant Director
State Plans and Grants
Division of Vocational and Technical Education
U. S. Office of Education

Friday, May 7

9:00 A. M. Program for Area Meetings in
Off-farm Agricultural Occupations

9:30 A. M. Planning Area Meetings
Sub-groups by Geographical Location

10:15 A. M. Coffee Break

10:30 A. M. Establishing Priorities Within States
for Programs in Off-farm Agricultural
Occupations ------------------------ Robert E. Taylor
Director
National Center for Agricultural Education

Duane M. Nielsen
Occupational Research and
Planning Program
Division of Vocational and Technical Education
U. S. Office of Education

11:45 A. M. Luncheon
Franklin Room, Ohio Union

Needs and Directions in
Vocational Education ----------------- Grant Venn
Superintendent of Schools
Parkersburg, West Virginia
and Author
MAN, EDUCATION, AND WORK

Friday, May 7 (Continued)

2:00 P. M.	Specific Policy Implications for Programs for Off-farm Agricultural Occupations	Ed Rumpf Assistant Director State Plans and Grants Division of Vocational and Technical Education U. S. Office of Education H. N. Hunsicker Head, Agricultural Education Occupations Branch Division of Vocational and Technical Education U. S. Office of Education
2:30 P. M.	Questioning Panel to Dr. Rumpf and Mr. Hunsicker	
3:30 P. M.	End of Conference	